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POLYMER HANDBOOK

SECOND EDITION

J. BRANDRUP . E. H. IMMERGUT, Editors

with the collaboration of W. McDOWELL

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VISCOSITY MOLECULAR WEIGHT RELATIONSHIPS AND UNPERTURBED DIMENSIONS OF LINEAR CHAIN MOLECULES

M. Kurata, Y. Tsunsahima, M. Iwama, K. Kamada Institute for Chamical Research, Kyoto University, Kyoto, Japan

CONTENTS

•	Page		Page
_ introduction	īv- 1	4. Cellulose and Derivatives	IV-30
1. The Viscosity-Molecular Weight Relationship	IV- 1	D. Calculated Unperturbed Dimensions of Freely Relating	
2. Unperturbed Dimensions of Linear Chain Molecules	IV- 4	Chains	IV-33
. Effect of Molecular Weight Distribution on the Viscosity		E. Unperturbed Dimensions of Linear Polymer Molecules	TV-34
Constant, K	·IV- 5	1. Main-chain Acyclic-carbon Polymen	IV-34
. Tables of Viscosity-Molecular Weight Relationships. (7)		1, 1 Poly(dienes)	IV-34
• KM ⁸	IV- 6	1, 2 Poly(alkenes)	IV-95
1. Main-chain Acyclic-carbon Polymen	IV- 6	1. 3 Poly(acrylic acid) and Derivatives	IV-36
1. 1 Poly(dienes)	IV- 6	1. 4 Polygr-substituted acrylic acid) and Derivatives	IV-37
1, 2 Poly(alkenes),	IV- 7	1. 5 Poly(viny) ethers). Poly(viny) alcohol). Poly-	٠.
1, 3 Poly(acrylic acid) and Derivatives	IV- 9	(vinyl esters), Poly(vinyl halides)	IV-39
1. 4 Polygr-substituted scrylic acid) and Darivativas	IV-11	1. 6 Poly(styrene) and Derivatives	IV-39
1. 5 Polyvinyl ethen	IV-14	1. 7 Others	ſV⊸ì
1. 6 Poly(vigyl absohol), Poly(vinyl halides)	IV-14	1. 8 Copolymets	IV-42
1. 7 Poly(viny) estern)	[V-14	2. Main-chain Carbocyclic Polymen	IV-44
1, 8 foly(styrene) and Derivatives	IV-16	3. Main-chain Heteroatom Polymers	IV-44
1. 9 Others	IV-19	3. 1 Poly(oxides)	IV-44
1,10 Copolymen	IV-20	3. 2 Poly(esters), Poly(carbonates)	TV-45
2. Main-chain Carbocyclic Polymen	IV-23	3. 3 Poly (amides)	[V-46
3. Main-chain Heteroatom Polymers	IV-23	3. 4 Poly(amino acids)	IV-47
3. 1 Poly(oxides)	IV-23	3. 5 Polyturethanes)	[V-47
3. 2 Poly(esters), Poly(carbonates)	IV-25	S. 6 Poly(salfides)	IV-47
3. 3 Poly(amides)	IV-28	3. 7 Poly(phosphates)	IV-47
1, 4 Poly(amigo acida),	IV-27	3. 8 Poly(illoxency), Poly(silestquioxency), Poly-	•
3. 5 Poly(ureas), Poly(urethanes), Poly(imines)	[V-28	(silmethylenes)	IV-48
3. 6 Poly(sulfides)	IV-28	3, 9 Poly(heterocyclics)	IV-49
3. 7 Poly(phosphates)	IV-28	3.10 Copolyman	IV-49
3. 8 Poly(nioxanes), Poly(niuesquioxanes)	IV-28	4, Cellulone and Derivatives	IV-50
3. 9 Poly(heterocyclica)	IA-30	F. References	IV-52
3.10 Copulymers (maleic anhydride, sulfones)	IV-80		

A. INTRODUCTION

1. THE VISCOSITY-MOLECULAR WEIGHT RELATIONSHIP

The limiting viscosity number (n) of a solution which has long been called the mutante viscosity is defined as

$$(\eta) = \lim_{c \to 0} \frac{\eta - \eta_b}{\eta_0 c}$$
 (1)

in terms of the solvent viscosity η_0 , the solution viscosity η_0 and the solute concentration e. The concentration e is expressed in grams of solute per milliliters of solution or, more frequently, in grams of solute per 100 milliliters of solution, the limiting viscosity number being given in the reciprocal of these units, i. e. in milliliters per gram or in deciliters per gram. Here, following the IUPAC 1952-recommendations (1), we adopt the former unit. The quantity [7] of a polymer solution is a measure of the capacity of a polymer molecule to embance the viscosity, which depends on the size and the maps of the polymer molecule. Within a given series of polymer homologi, (η_0) increases with the molecular weight M; hence it is a measure of M.

Table C gives the limiting viscority number-molecular weight relationships for polymers in various solvents and at various temperatures. The table contains the constants of the equation

VISCOSITY-MOLECULAR WEIGHT RELATIONSHIPS AND UNPERTURBED DIMENSIONS OF LINEAR CHAIN MOLECULES

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CONTENTS

		Pago		Page
		IV- 1	4. Calluloss and Derivatives	IV-30
	Introduction	IV- 1	D. Calculated Unperturbed Dimensions of Freely Rotating	
	1. The Viscosity-Molecular Weight Relationship		Chains	IV-33
	2. Unperturbed Dimensions of Linear Chain Molocules	IV- 4	E. Unperturbed Dimensions of Linear Polymer Molecules	IV-34
	Effect of Molecular Weight Distribution on the Viscosity		Unpermised Dimensions of Linear Polymens Main-chain Acyclic-carbon Polymens	IV-34
	Constant, K	IV- S .		IV-34
	Tables of Viscosity-Molecular Weight Relationships. [7]		1. 1 Poly(dienes)	IV-35
	• KM ² ,	IA- 6	1. 2 Poly(alkenes)	IV-36
	1. Main-chain Acyclic-carbon Polymers	IA- 6	1. 3 Poly(acrylic acid) and Derivatives	IV-27
	1. 1 Poly(dience)	IV- 6	1. 4 Polygr-months acrylic acid and Dorivatives	74-71
	1, 2 Poly(alkenes)	IV- 7	1. 5 Poly(viny) ethem), Poly(viny) alcohol), Poly-	IV-39
	L. & Poly(acrytic acid) and Derivatives	IV- 9	(vinyl esters), Poly(vinyl halides)	• • • • • • • • • • • • • • • • • • • •
	1. 4 Polygr-substituted acrylic acid) and Derivatives	IV-11	1. 6 Poly(styrene) and Derivatives	IV-39
	1. S Poly(vinyl ethers)	IV-14	1. 7 Other	. IV-41
	1. 6 Poly(vinyi alcohol), Poly(vinyi halides)	IV-14	1, 8 Copolymen	TV-42
	1. 7 Poly(vinyl estern)	IV-14	2. Main-chain Carbocyclic Polymers	[V-44
	1. 8 Poly(styrene) and Derivatives	IV-16	3. Main-chain Heteroatom Polymers	IV-44
	1. 9 Others	IV-19	3, 1 Poly(oxides)	IV-44
	1.10 Copplymen	IV-20	3, 2 Poly(esters), Poly(carbonates)	[V-45
		rv-23	3. 3 Poly (amides)	IV-46
	2. Main-chain Carbucyelic Polymeri	IV-23	3. 4 Poly(amino acids)	ſV-47
	3. Main-chain Heintoatom Polymers	IV-23	3. 5 Polyturethanes)	IV-47
	3. 1 Poly(oxides)	IV-25	3. 6 Poly(stilldes)	IV-47
•	3, 2 Poly(estem), Poly(carbonates)	IV-26	3. 7 Poly(phosphates)	IV-47
	9, 3 Poly(amides)	IV-20 IV-27	3. 8 Poly(siloxanes), Poly(silosquioxanes), Poly-	
	3. 4 Poly(amino acidi)	• • •	(([[methylenet)	[V-48
	3. 5 Poly(uress). Poly(urethanes). Poly(imines)	IV-28	3, 9 Poly(heterocyclics)	IV-49
	2. 6 Poly(sallides)	IV-28		IV-49
	3. 7 Poly(phosphatos)	IV-28	3.10 Copolymen	IV-50
	3. 8 Poly(alloxanes), Poly(silessquioxanes)	IV-28	4. Cellulose and Derivatives	IV-58
	J. 9 Poly(heterocyclics)	IA-30	F. References	14.000
	3.10 Copolymers (maleic anhydride, sulfones)	IV-30.		

A. INTRODUCTION

1. THE VISCOSITY-MOLECULAR WEIGHT RELATIONSHIP

The limiting viscosity number (n) of a solution which has long been called the intrinsic viscosity is defined as

in terms of the solvent viscosity η_{\odot} the solution viscosity η and the solute concentration c. The concentration c is expressed in grams of solute per millilities of solution or, more frequently, in grams of solute per 100 millilities of solution, the limiting viscosity number being given in the tectprocal of these units, i. e. in millilities per gram or in decilities per gram. Here, following the IIIPAC 1952-recommendations (1), we adopt the former unit. The quantity (η) of a polymer solution is a measure of the capacity of a polymer molecule to enhance the viscosity, which depends on the size and the shape of the polymer molecule. Within a given series of polymer homologs. (η) increases with the molecular weight M; hence it is a measure of M.

Table C gives the limiting viscosity number-molecular weight relationships for polymers in various solvents and at various temperatures. The table contains the constants of the equation

VISCOSITY-MOLECULAR WEIGHT RELATIONSHIPS

It is now well established that for linear, Rexible polyment, under spacial condition of temperature or solvent, (usually known as the Flory "theta" temperature or solvent (2)), the above equation becomes

$$[n]_{\Theta} = K_{\Theta} M^{0.50}$$
 (3)

The sign Θ in front of the temperature data in the table indicates that the viscosity constants were obtained under the Θ condition. Since Eq. (3) is approximately valid over the whole molecular weight range, R_{Θ} and a = 0.50 may be used, without modification outside of the molecular weight range in which they were determined. However, it must be noted that $\{n\}$ is rather sensitive to temperature in the vicinity of Θ , especially when M is higher than 5×10^5 .

In ordinary good solvents, the constants K and a obtained are valid only within a rather limited range of M (3,4). It is, therefore, quite probable that the tabulated milationships are in error outside the indicated range of M (see eighth column in the table). As for the effect of temperature, however, both K and a mostly become insensitive to the temperature when a exceeds about 0.70, and they may be used in a ten-degree range on either side of temperature at which the constants were determined.

The method of determination of the molecular weight and the number of fractionated samples (Fr.) or whole polymer samples (W.P.) used to determine the [n] -M relationship are also given in the ninth and the sixth or seventh columns, respectively. The abbreviations used are as follows.

(A) Methods yielding the number-average molecular weight, Ma.

CR. cryoscopy.

EG. end-group titration.

VOS. vanot pressure componetry.

(B) Methods yielding the weight-average molecular weight, M.,

LS, light scattering. SA, approach to the addimentation equilibrium.

SE, sedimentation equilibrium. SA, (Archibaid's method).

(C) Empirical or semi-empirical methods.

EM. electron microscopy.

EM. limiting viscosity aumber-molecular weight relationship.

EV. analysis of polymerization rate (yielding M_D).

EV. diffusion and viscosity multi viscosity molecular weight relationship.

ED. sedimentation and diffusion, sedimentation and viscosity.

Thus, for example, the constants tabulated are for the [n] -M relationships expressed in terms of M or M if the method is specified as OS or LS, sexpoctively; i.s.

$$[\eta] = K_0 M_0^{\frac{1}{2}} \tag{4}$$

[n] = K_w M_w⁴ (5)

The values of K and K, especially the former, are greatly influenced by the molecular weight distribution (MWD) of polymer samples, and caption must be taken in using these relationships.

To illustrate this effect, let us assume that:

(D Eq. (2) is applicable to the molecule i with molecular weight M; over the whole range of M; i.e.

$$[\eta]_i \circ K M_i^a$$
 (6)

(ii) The weight fraction w, of the molecules i in a given sample can be represented by a continuous exponential function,

$$w_i(M_i) = \{y^{h+1}/\Gamma(h+1)\}M_i^{h} \exp(-yM_i)$$
 (7)

$$y = h/M_n \circ (h+1)/M_n$$
 (8

or by the log-normal function,

$$w_1(M_1) = AM_1 \exp \left(-p^2(\ln M_1/M_2)^2\right)$$
 (8)

where h. A. p and M_{\odot} are constants, and Γ represents the gamma function.

Then, since $\{\eta_i\} \in \sum_i w_i \{\eta_i\}_i$, we obtain

INTRODUCTION

IV-3

$$K'' = KL(9+p+1) \setminus (p+1) L(p+1)$$
 (7.1)

for the exponential MWD, and

$$K_{\rm p} = K(M_{\rm p}/M_{\rm p})^{0.53(3+1)}$$
 (12)

$$K_{\omega} = K/M_{\omega}/M_{\odot}^{0.58(n-1)}$$
 (13)

for the log-pormal MWD (5). The values of K /K and K /K calculated by these equations are shown in Table 8. This table may be used for entimating an error due to MWD in determination of M.

As an example, let us assume that a given polymer sample has the exponential MWD with $M_{_{\rm B}}/M_{_{\rm B}} > 2.0$, while an available $[\eta]$ - $M_{_{\rm B}}$ equation has been obtained for samples with a narrow MWD, e.g. $M_{_{\rm B}}/M_{_{\rm B}} = 1.1$, Further, let a be 0.70. Then, to find the correct value of $M_{_{\rm B}}$ of the given sample from $[\eta]$, we must use the Equation (4) with $K_{_{\rm B}} = 1.54K$, instead of the available equation with $K_{_{\rm B}} = 1.06K$. Use of the latter would lead to an overestimate $M_{_{\rm B}}$ which is related to the correct $M_{_{\rm B}}$ by

$$[\eta] = 1.54K M_{\rm h}^{0.70} = 1.06K M_{\rm h}^{0.70}$$
 (14)

The error amounts to about 70%, i.e. M_n' = 1.7M_p. Thus, application of the viscosity equation written in M_n is to be restricted to within a narrow class of samples, unless an appropriate correction is made. On the other hand, if an [n]-M_p equation is available for the same pair of working and references samples as above, we have

$$(n) = 0.951 \text{K M}_{\odot}^{0.70} = 0.991 \text{K M}_{\odot}^{0.70}$$
 (25)

instead of Eq. (14). Hence, the error in My amounts to only 6% (My a 0,94My), which will be negligible for most practical purposes.

Based on the above consideration, we classify the beterogeneity of polymen in four classes. A to D, as shown in the last column of Table S, and indicate it in the tenth column of Table C as a measure of the heterogeneity of the reference samples used.

It is destrable that readers select their own relationship by inspecting these data on heterogeneity as well as those on the number of samples and molecular weight range. Generally speaking, a "good" [7] -M relationship is one that has been obtained on the basis of M_w for at least four samples of clauses A and B (exceptionally C) or on the basis of M_w for those of claus A (exceptionally B), whose molecular weights range over at least one half orders of magnitude.

In the "Romario" column of Table C, we have occasionally indicated by the letter R a "recommended" relationship for the convenience of readers. In the range of low molecular weight (mostly less than 10°), the constant a becomes 0.50 irrespective of solvent. This type of relationship can not be used, even approximately, at higher molecular weights. This case is noted by the letter L. High convenion polymers are also marked by the letter H, where the [7]-M relationships are less reproducible due to chain branching than are ordinary ones. The abbreviations used are as follows.

- A. narrow MWD polymers, or well-fractionated polymers, May My \leq 1.25.
- B, ordinary fractionated polyment, 1.30 ≤ M /Ma ≤ 1.75.
- C. poorly-fractionated polymers or most probable MWD polymers, 1.8 ≤ M_w/M_p ≤ 2.4.
- D. wide MWD polymen, M /M > 8.5.
- H. high conversion polymers, including branches.
- L. Umited to low molecular weight polymen.
- R. recommended relationship.

in this table, polymers are arranged according to their structure in subgroups. Within each subgroup, the polymers are, in principle, given in alphabetical order. Within each polymer, the solvents are also arranged in alphabetical order, followed by the mixed solvents.

Chain configurational data are occasionally given in the first column. The data given in parentheses refer to only one set of viscosity constants listed in the same now, while the data given without parentheses refer to a series of sois listed in the same and succeeding rows. Thus, for example, the data "N content, 13.9 with are effective only for the sixth row of cellulose trinitrate, and the data "95%-cls, 1%-trans, 4%-1,2" are effective for the fourth to eighth rows of polybutediene.

Table C is essentially based on the table published by Kurats and Stockmayer (3). Data were also taken from tables published by Peterlin (7), Meyerhoff (6), Elias (9) and Krause (10), the last one including a number of unpublished data on acrylic and methacrylic polymers, we are grateful to these authors. Thenks are tendered also to J. Brandrup and K. Kamide for their belp with this compilation.

VISCOSITY-MOLECULAR WEIGHT RELATIONSHIPS

2. UNPERTURBED DIMENSIONS OF LINEAR CHAIN MOLECULES

The mean-square end-to-end distance <12> of a linear chain molecule in solution is usually expressed in terms of two basic quantities, the experient mean-square and-to-end distance <12> and the expansion factor or, i.e.

$$\langle r^2 \rangle = \langle r^2 \rangle_0 \sigma^2$$
 (16)

The latter quantity or represents the effect of "long-range interactions" which can be described as an omnotic swelling of the chain by the solvent-polymer interactions. While the unperturbed dimension <12> represents the effect of "short-range interactions" such as bond angle contrictions and static hindrances to internal rotation. The static bindrances are also influenced by the torques exerted on the chain by solvent molecules, but the effect is rather small in

for sufficiently long chain, <r2> , becomes proportional to \$\(\mathbb{I}_1 \mathbb{l}_1^2 \), where \$n_i\$ is the number of the 6th-kind bond of longth \$1_i\$. The quantity \$C_{\infty}\$ defined by

$$C_{\infty} = \lim_{n \to \infty} \langle r^2 \rangle_0 / \sum_i n_i L_i^2$$
 (17)

is often called the characteristic ratio and it serves as a measure of the effect of short-range interactions

The freely rotating state is a hypothetical state of the chain in which the bond angle restrictions are retained, but the steric hindrances to internal rotation are released. The mean-square end-to-end distance of the freely rotating chain <12>of can be readily calculated from the given basic structure of the chain. For instance, if the chain consists of only one kind of bond of length 1, we obtain

$$<\tau^2>_{of} = nl^2 [(1 - \cos \theta)/(1 - \cos \theta)]$$
 (16)

where n is the number of bonds and 0 is the supplement of the valence bond angle. For vinyl polymer chains, 1 = 0.154 [nm], cos 0 = 1/3, and $n = M/m = 2M/M_{H}$; and hence.

$$(_0/N_0)^{1/2} = 0.208/M_0^{1/2} = 0.218/m^{1/2}$$
 (am)

where M_{ij} is the molar weight of the repeating unit and m is the average molar weight per sheletal link. Similar expressions for $t_{col}(z) = \sqrt{r^2 + r^2}$ can be obtained also for more complicated chains. The results are summatized in Table D.

The ratio of <12> to <12>1, then, represents the effect of static hindrance on the average chain dimension;

$$\sigma = t_0/r_{0f} = (\langle t^2 \rangle_0/\langle t^2 \rangle_{0f})^{1/2}$$
 (20)

The quantity σ is independent of n. Table 2 gives a list of the unperturbed dimensions of linear chain molecules which were obtained under various conditions of solvent and temperature. The values of $r_0/N^{1/2}$, σ and C_{∞} are given, together with the experimental values of S_{02}/M_{\odot} , s_p or K_0 from which r_0 was computed. S_{02} which is the abbreviation of $< S^2 >_{02}$ is the z-average value of the unperturbed radius of gyration, s_p is the persistence length and K_0 is the viscosity conversant corresponding to K_0 in Eq. (3). The methods used to determine these quantities are also indicated in the tenth column of the table by using the following abbreviations column of the table by using the following abbreviations,

(A) Light scattering

- LT, Zimm's plot in a theta solvent yielding $s_{ox}/M_{w}^{-1/2}$. After a heterogeneity correction is made, the tabulated value of $t_{o}/M_{w}^{1/2}$ (a $6^{1/2}s_{ow}/M_{w}^{-1/2}$) is obtained.
- LD, dissymmetry method in a theta solvent, Less reliable for beterogeneous samples than the former method.
- LG. Zimm's plot in good solvents yielding 5 /M 1/2. After corrections for the excluded volume effect and bestrogeneity are made, the tabulated value of r₀/M^{1/2} is obtained (3, 12).
- (B) X-ray small angle scattering
 - XS, the persistence length a is obtained irrespective of the solvent nature. The tabulated values of to/M are the asymptotic values for infinitely high molecular weight, (13, 14).
- (C) Limiting viscosity number
 - VT. viscosity-molecular weight relationship in a theta solvent, Eq. (3). $t_0/M^{1/2}$ is calculated by the Flory and Fox relation, $K_0 = \Phi_0(t_0/M^{1/2})^3$. The following values of Φ_0 were used:
 - 2.7 x : 0^{23} for well fractionsted polymers (class A in Table C): 2.5 x 10^{23} for ordinary fractionsted polymers (class B):

 - 2.5 x 10 for ordinary mactionates polymers (wess p):
 2.1 x 10 for poorly fractionated or unfractionated polymers (class C or D).
 - VG, viscosity-molecular veight relationship is good solvents. K var critimated by using the Kurata-Stockmayer-Fixman plot (3, 4) or other analogous plots (12),

- VA. viscosity in good solvents. The correction of excluded volume effect is made by using the Flory-Krighaum-Orolino theory of the second virial coefficient A_2 or other analogous theories (12).
- (D) Method yielding the temperature dependence of ro.
 - ST, stress-temperature coefficient of undiluted or swollen samples.

The polyment are arranged in Table E in the same order as in Table C. For each polymet, smoothed values of $r_0/M^{1/2}$, σ and C_∞ , which were mostly obtained by VT or VG, are given in the first line, followed by some typical values obtained by more direct methods such as LT or XS. The listed values of $r_0/M^{1/2}$ sometimes scatter appreciably, reflecting the difficulty, both experimental and theoretical, involved in determination of this quantity Especially of the termination of this quantity. in the case of cellulosic chains, the right magnitude of ro is yet in controversy (542, 549, 3, 691, 696, 688, 678, 686, 12). In meant papers, emphasis has often been put on the effect of temperature or solvent on the importurbed dimensions. These data are put together at the end of the tabulation for each polymer. Table E is also based on the tables published by Kurata and Stockmayer (3).

B. EFFECT OF MOLECULAR WEIGHT DISTRIBUTION ON VISCOSITY CONSTANT, K

						= 0,7	3 =	0,6		≈ 0.8) =		Qm
M_/M	K /K	0.5 K /K	K _n /K	<u>> 0.6</u> K_/K	K /K	K /K	K _n /K	K /K	K"\K	K _U /K	K _B /K	K _V /K	:
	<u>n</u>	<u> </u>	•	MOLECULAR	WEIGHT D	OTUESTRE		NTIAL TYP	E. EO. (7)		•		
		0,890	6. 91	0.897	9.85	0.911	14.18	0.923	20.56	0,963	30	1	I
30	4.87	0.892	4.57	0.900	6.02	0,914	8,16	0.895	11.02	0,964	15	1	
16	. 3.46 2.83	0.896	3.59	0,902	4.59	0.917	5.91	0.957	7.67	0.965	10	1	
10	2,03	0.997	2.40	0.913	2,85	0,925	3.42	0.943	4.12	0.968	5	1	
5	1.60	0.921	1,70	0.926	2.02	0,936	2.29	0,952	2,62	0.973	3	1	
3 .		0.940	1.43	0.943	1.54	0.951	1,68	0.903	1.83	0, 979	2	1	
2	1,33	0.948	1.33	0.951	1.42	0,956	1.51	0.968	1,63	0,982	1.75	1	
1.75	1,25		1,23	0.961	1,28	0.967	1.36	0, 975	1,42	0.986	1.50	1	
1,60	1,18	0.959 0.975	1.12	0.977	1,15	0.980	1.18	0.985	1.21	0.991	1.25	1	
1,25	1.09 1.04	0,989	1.05	0,989	1.06	0.991	1.07	0.993	1.09	0,996	1.10	. 1	
			2 - 1	COLECULAR	WEIGHT DI	STRIBUTION	N: LOG. N	DRMAL TYP	E. EO. (9)				
			6.12	0, 665	7,57	0.700	11.58	0.162	18,32	0.858	30	1	
30	3,58	0,654	3.67	0.723	5,01	0.753	7.03	0.896	10,13	0. 885	15	1	
15	2.76	0.719	3.02	0,759	3.94	0.785	3.25	0, 632	7,16	0.902	10	1	
10.	2,37	0.750	2.17	0.824	2. 61	0,845	3.19	0. B79	2,98	0.930	5	1	
Б.	1,83	0.818	1,69	0.877	1.92	0.891	2.21	0,916	2,58	0,952	3	1	
3	1.51	0,872	-	0.920	1.51	0.930	1.65	0,946	1.81	0.969	2	. 1	
2	1.30	0,917	1.39	0.935	1,40	0.943	1,50	0.956	1.61	0, 975	1.75	1 .	
1.75	1.23	0,932	1.31 1.21	0.953	1.27	0.958	1.34	0.968	1.41	0.982	1.80	7	
1.50	1,16	0.951	1.11	0.974	1.14	0,977	1.17	0,882	1.21	0.990	1.25	1	
1.26	1,09	0.973 0.988	1.11	0.989	1.05	0. 990	1.07	0.992	1.08	0.996	1.10	7	

IV-6

C. Tables of viscosity-m lecular weight relationships, $\{\eta\}$ = KM^{3}

Polymer	Solvent	Temp.	K x 10 ³	a ř	No. of	rambjer	Mol. Ren	₩t. 10**	Method	Remarks	Rei
	·····	[°C]	[ml/g] ·		Fr.	W.P.	Мх	10			
		. 1. 1	MAIN-CHAIN AG	YOUC-C	urbon p	OLYMERS					
•			1,1 9	OLY(DENE	S)						
							•				٠.
Poly(butadiene)					_		_				
98%-cu, 2%-1,2	bensene	90	33.7	0.715	9	.**	S	- 50	0 6	A,R	1
	isobutyl acetate	0 20.5	165	0.50	6	•	5 5	- 80	06	A	. 1
	toluene	.30	30.5	0,725	ð · ·		,	- 50	06 .	٨	. 1
95%-cis, 1%-trans							ដេ		LS	A	1
4%-1,2	ben zene	30	8.5	0.76	4			- 50 - 50	کا کا		
	cyclobexane	20	11.2	0.75	4 .		15 15	- 35	دا گذ	A	1
	6-methyl-2-bexasone	6 10.3	150	0,50	4		10	- 35 - 25	م کا	в В	1
	3-pentanone		152	0.50	_		10	- 25 - 65	. Ož	· X	
	Coluene	30	33.9	0.688	В		10	- 63	U3	^	1
94%-cis, 4%-trans.	hen sen - '	25	41,4	0.70	8		9	- 120	os		
25-1.2	benzena	25 8 20.2			8.		9	- 120 - 120	OS .	A	. 1
6018. ad a	diox2ne	g 20.¥	205	0.50	0	• ••	v	- 120	w	٨	. 1
976-cis, Th-trans,		. 32	10	0.77	13		10	- 160	LE	B.R	2
5%-1.2	benzenc	. 42	10	0.77		••	10	- 100	ص	D.A	4
51%-trans, 43%-cis, 6%-1,2	toluene	30	39	0,713	6		11	- 25	œ	A	2
	tomese	30	39	0,713	•		• 2	• 23	w	.^	•
71%-trans. 4%-cis.			*.	0.77	8		230	- 830	LS	c	2
25%-1,2	cyclohexane	25	12			••	230		دي کا		9
79%-trans, 21%-cls,	cyclohexann	20	36	0,70	12	. ••		- 130	_	B.R	
975-mans, 3%-1,2	cyclohexane	40	26.2	0,70	7.		. 4	- 17	LS.	В	2
4	tolpene	30	29.4	0.753	. 6		5	- 16	os	. A	2
ca. 100%-cis	benzene	32	14.5	0.75	8	••	18	- 50	21	٨	. 9
	heptane/hazane (1/1	vol)20	138	0,53	,5		7	•	SD	A .	. 2
65%-1,2, 25%-trans,					_		_			_	
10%-cis	tolpene	25	110	0.62	. 8	••	7	- 70	os	В	.2
5°C-empision,		/	3/[ŋ] 4/9 = 7.15						A		2
randomly branched	3-pentanone	9 24 M	/[n] = 7.13	5 • 8.47M	10		10	- 100	∞ 5	·C	
50 °C-emulsion,		2/	2/(m) 4/8 = 4.6						<u> </u>		
randomly branched	penzene	9 5 M	$/(\eta) = 4.6$	1 • 0.3281	M 16		8	- 124	os	. с	2
Poly(butadiene-co-actylo-		· · · ·	·								
nivile), Buna-N subbet	acetone	25	50	0.64	5		2.5	- 10	06	В	2
	benzene	25	13	0.55	6	•	2.5	- 10	06	B	. 2
	cylotolorm	25	54	0,68	í	••	2.5	- 10	OS .	B .	8
•	toluena	25	49	0,64	7 .	•• .	2,8	- 40	OS	В	2
oly(butadless-co-styress)	•		•			•					
una-6, GR-5, or SBR			 .								
mpper	benzene	25	52.6	0.66	24	••	1	- 160	Q 6	_	4
	•	25	54	0. GE	8	•	1.	- 166	OS ·	9	4
	cyclohexane	90	31.6	0.70	6.		Ş	- 25	OS .	۸ .	4
	2-pentanona	0 21	185	0,50	6	•-	5	- 25	os	۸ .	4
	toluene	25	62.5	0.667	28	••	2,5	- 50	OS.	. B	. 2
		30	16.5	0,78	••	9	3	- 35	OS		4
		. 30	37.9	0,71	6		5	• 26	OS .	A	•
green traceou	toluene	30	21.4	0.74	15		3	- 20	OS	A,R	•
branched fraction	tolucie	30	585	0.48	20	••	20	- 100	06	В	4
oly(2 -tart-butylbutadlene)		8)	4.7	0,80	••	8	6	- 90	SD	۸ .	3
•	OCTABLE	21	4.2	0,80	·	7	6	- 36	SD	٨	3
oly(chloroprene)											
Neoprane CG	benzene	25	2.02	0.89	10		6	- 150	O\$	B	3
Neoprene GN	benzane	25	14.6	0.73	16	••	3	• 96	CS .	B	3
Neoprene W	benzene	25	15.5	0.71	8	••	5	- 100	06	В	3
		25	15,5	0.72	9	••	5	- 80	کا	B.R	3
					-		-	•••	_		

n	١.	. 4	

Polymer	Solvens	Temp.	K x 10	4	No. of	saraples	Mol. V		Method	Bemarks	Ref.
•		(°C)	[ml/g]	<u> </u>	Fr.	W.P.	M x 1	0		·············	· ·
Poly(chioroprene) (Cont' d.) Neoprene W (Cont' d.)) A homet somfate	25	37.8	0,62	7		15	- 300	LS	٨	35
Neoprene w (Cont u.)	carbon tetrachloride	25	22.1	0.69	7		15	- 300	LS	٨	35
•	cyclobexane	8 45.5	107	0.60	7		15	- 10	LS	В	34
	toluens ·	25	50	0.615	13	••	4	- 120	OS	В	28
type, unspecified	totacue	-•			•						-
Poly(Isoprene)	ben zeno	30	18.5	0.74		` 4 '	8	- 28	œ	C :	37
natural subbes	cyclobezzne	27	80	0,70	 ·	1	ca 185		15.\$D	C	38
	2-pentanone	0 14.5	119	0.50		4	. в	- 28	os	С	87
	toluene	25	50.2	0,667	20		7	- 100	O\$	B,R	39
41 - 41 - 41 -	hexage	20	68.4	0.58	5 ·	••	5	- 80	SD	A	40
synthetic cis	toluens	30	8,51	0.77	5		20	- 100	は	Ņ	.41
aa aab ./.	toluene	30	20.0	0,728		12	14	- 580	LS	A.P	42
85-91 % -cL	tolnere	30	15	0.74		16	2	- 15	PR .	٨	43
	0.0.4. m/mathulmantsu		22, 2	0,683		8	. 23	- 580	LS	٨.	+2
	2, 2, 4-trimethylpenter			-, -45		•					
	beptane/propanol	40	37	0,63		6	43	- 580	LS	* A	• 42
	(78/22 vol)	90	91	7,00	•	-					
84%-cls, 14%-trans.		•	10.0	0.78	20		. 2	- 80	os	8	44
2%-1,2	penzenc	25	13.3	0.78	25		2	- 60	OS	В ,	44
,		26	11,2		50		2	- 50	OS	В	. 44
	dinxane	B 34	145	0.50	9	-	0.2	- 5	os	A,R	19
gutta percha	benzene	25	35.6	0.71	-		0.2	- 6	os	A	19
•	dioxane	8 47.7	191	0.50	9 .		10	- 20	os	c	37
	propyl acetate	₿ 60	232	0.50		8		- 140	เร	Ċ	26
synthetic was.	benzene	52	43.7	0.65	24	. .	•	- 144	_		
Poly(1,1,2-trichlaro-						•	25 -	- 120	15		36
butadisoc)	bensene	25	31.6	0,66	11	•-	25	- 130	w		
											٠ .
•			1.2	POLY(ALK	ENES)						•
							. 2	- 18	LS	В	86
Poly(alkane) C ₁₀ -C ₁₈	toluene	25	12,7	1.04	12	••	•	- 700	ıs —	B	67
Poly(alkene) C ₁₂ C ₁₈	octane .	38	21.	0.61	10	••	•	- 1,00	_	•	•
Poly(1 -butene).					_		10	- 120	LS	c.	al
atactic	animie	9 85.2	123	0.50	3.		10 0.03	0.5	EG	5.L	82
	benzene	30	22.4	0.73	11			-	20 کنا	C	81
	ethylcyclobexane	70	7,34	0.89	\$	••	4.	- 130		, , , , , , , , , , , , , , , , , , ,	81
isotactic	ethylcyclobexans	70	7.34	0.80	4	••	8	- 94	IS.	^	83
,,	decalin	115	9.49	0.73	· 6		4.8	- 90	LS		63
	beptane	35	4.73	0,80	. 6		4.5	- 90	21		83
		60 -	15.0	0.65	. 6	. 	4.5	- 90	LS		83 83
	nonane	80	5,85	0.80	4		11	- 94	Ľ	٨	6,
Poly(cthylene)										_	. 58
low premire	biphenyl	0 127.5	32 3	0,50	- 4		2	- 30	LV	8	59
we pundo	1-chloronaphthalene	125	138	0.58	1.	?			LS	7	
•		125	18.4	0.78	10	••.	. 5	- 100	21		60
		125	43	0.67	10		5	- 100	Ľ	C,D	61
		129	27.1	0_71	26	•-	· 5	- 100	LS	· D	62
	decalin	135	67.7	0.67	••	>10	· 3	- 100	LS	ם	. 63
•	Accerni	136	46	0,73	23	••	. 3	- 64	LS	•	64
		135	62	0.10	7		2	- 105	LS	B,R	65,66
	•	135	58.5	0,125			0.4	- 50	OS	8	67.68
•		0 153.3	302	0.50	7	٠	2	- 105	ĮV	В	58
•	decanol	8 161.4	302 295	0.50	ė		. 2	- 105	LS	B	65
•	diphenyl other	. •	295 315	0.50	}			- 105	LV	B	58
•	diphenylmethane	0 142,2		0.50		••	2	- 105	LV	9	68
	dodecanol	8 137.3	307		-	8	. 8	- 32	ي.	D .	69
		8 138	316	0.50	••		2	- 105	LV	8	58
	octanol	6 180.1	286	0,50	,	••		- 103	LS	Ċ	70
	tetralin	105	16.2	0,83	4		13		Ľ	•	60
			23.6	9.78	36		5	- 100.	حيا		
		120								P	71
	•	120 120	22,6	0.77 0.76	20	••	0.3 2	- 50 - 30	77 20	В В	71 71

• IV -8

Polymer	Solvent	Temp.	K x 10 ³	•	No. of	samples	Mol, V Range		Method	Romarks	Ref,
		(°C)	(mVg)		Ps,	W.P.	. M x 10				
Dalistanhutana (Carata)											
Poly(ethylens) (Cont',d.) low pressure	tetralin (Cont' d.)	130	51 .	0.725	9		0.4	- 50	Œ	B.R	72
ton bressure	tenzio (Cont d.)	130	31.8	0.72	••	10	8	- 17	دة . دي .	D. ~	73
	p-xylene	105	16.5	0.89	4			- 60	وا	ځ	70
	y 2,11111	105	17.6	0.83		••		- 18	O6 ·	c	74
		105	51	0.725	7			- 60	ιν	B, R	75
	parafilm wax			٧,	•		•.•	• ••	••	-,	,,
	(M_ = 390±10)	150	(42)	(0.65)	9		0.04	- 11	rs .	D	76
pigh pressure	decalin	70	38.73	0.738	8	••	-	- 5.5	os .	В	77
	p-xylene	75	135	0.63	•	22	-	- 7,6	os	D	78
	, -,	61	105	0.63	7		-	- 10	OS	D	79
Foly(ethylene) (normal parailin)	carbon tetrachloride	20 (၅)	= -1.14+0.10	и и		1 .	0.024	- 0.048	oa,	A	80
Poly(cthylene-co-pro- pylenc-co-diene),						:					
EPDM rubbet	cyclobexage	.40	53.1	0.75	20	••	. 3	- 30	OS	A	41
Poly(isobutene)	anisole	8 105	91	0.75			18	- 30 - 188	LV	A. B	49
	penacoc	8 24	107	0.50	16			- 188	LV	,	49
		25	89	c,53	9			- 126	OS, CR	B.R	50
		30	61	0.56	9			- 126	OS,CR	8	. 50
		40	43	0.60	9		=	- 126	05,02	3	50
		60	26	0.66	9	•	0,05		os,ca	В	50
• ,	: carbon tetrachioside	30	29	0.68	12	••	0,05		OS, CR	j	60.
	cyclohexane	25	40	0.72	6		14	- 34	os ·	•	51
	·	30	27.6	0, 69	7		. 4	- 71	œ	A,R	52.
•	÷	30	26.5	0.69	12		0.05		OS, CR	B.	50
	decalin	25	22	0.10	. 6	••		- 1680	LS		53,54
• • • • • • •	disobutylene	20	36	0.64	23		1		OS		55,52
* .	• • •	25	130	0.50	5	••	0,4	2.5	O6	A,L	56
	phenetol	0 86	91	0.50	- A - 1	 ·	5 -	188	LV.	В	49
٠,	toluene	0	40	0,60	8		1 .	146	LV		80
		16	24	0.65	6		1 -	146	LV	D	80
		25	87	0.56	6		14 -	- 34	O6	B	61
•		30	20	0.67	. 5 .	••	1 .	146	LV	B,R	50
•		50	20	0.68	6		1 -	146	LV	8	- 50
•	÷	60	13.5	0.71		, 	11 -	- 146	LV ·	1	60
		90	12.6 .	0.72	3	4.	46 -	14G	LV	Ð	60
oly(laobutene-co-iso-		,									
orene), butyl subbet	carbon tetrachloride	23	10.7	0.78	6		10 -	30	06	A	57
	taluene	25	66	0.60	5		16 -		0 6	A	57
		. 30	31.4	0.678	8	••	10	. 30	OS	A	57
oly(4-methy1-1-pentene)	disobutylene	20	42	0.63	6	••	1 -	20	LS	٨	85
oly(1-octene)	promobensene	25	2.90	0.78	S	••	25 -	400	Ľ	A ,	84
	cycloheirane	20	5.15	0.78	6		25 -	400	LS	Ą	84
	phenetol	8 50.4	65.5	0.50	4		60 -	400	کیا	A	84
of A(btobAjeus)			. •			•					
atactic	bensene	25	27,0	0.71	c	••	6 -		06	¥	88
•		30	33.8	0.67	6		2 -		os	٨	89
	1-chieronaphthaiene		182	0.50	3		• •		OS .	٨	90
•	cyclohexane	25	16.0	0.80	6	••	. 6 •		OS .	٨	88
		30	20.0	0.76	6	••	2 -		os	A .	89.
	cyclohexanone	e 92	172	0,50	4		. 1.5 -		OS	^ .	90
	decalin	136	16.8	0.71	6		2 -		OS 	A	91
		195	11.0	0.80	6 -		2 -		LS 	A,R	88.
	formulation to the total	138	54.2	0.65		10	2 -		ಚ ~	D .	85
	isopentyl acatate	0 34	168.5	0,50	6		2 -		∝ ~	A .	89
	phenyl other	145	192	0.47	3	••	3,7 -		os ~	٨	90
		θ 153	120	0.50	3	••	3.1 -		OS .	٨	90
	tetralin	130	1.24	0,96		••	,		?		93
	toluene	20	21.0	0. 725	7		3 -		O2	٨	89 .
Lotactic	biphonyi	0 125.1	152	0.50	4		s -	42	LV	٨	94
	1 -chloronaphthalone	139	21,5	0,67	11		30 -	170	LS		. 95

		P	OLY(ACRYLIC	ACID) ANI	DERIVA	TIVES						IV-0
Polymer	Solvent	Temp.	K x 10 ³	•	No. of	samples	Mol. Rang			Method	Remarku	Ref.
		(°C)	[ml/g]		Fr.	W.P.	М×	10				
											•	•
Poly(propylene) Cont' d.							5	_	63	เร	A,R	96
sotactic (Cont' d.)	•	145	4.9	9.80 0.80	. 6	••	2		62	เร	A,R	88
	decello	135 135	10.0	0.80	4	••	10		00	LS.	A,R	97
	dibenzyl ether 0	183.2	106	0.50	4	••	5		42	LV	Α .	94
		142.5	137	0,50	4		5		42	LV	A	94
•	• •	145	132	0,50	4		. 3	•	4R	08	٨	90 .
	•	153	112	0,54	4	••	3	-	48	06	٨	90
	tetralin	135	2,5	1,0	5	••	2		11	OS		98.
•		135	9.17	0.80	9		4	-	54	OS .	A,R	96 .
	p-xylene	85	96	0.63	12		,			OS .		99 - 100
syndiotectic	beptane	30	31.2	0.71	5		9	•	45 -	Ľ	. *	100
		1.3	POLY(ACRY)	IC VCID) V	ND DEST	23VITAV			٠			
				0.80	9.		2 .		50	5D	B .	101
Poly(scrylamide)	Aster	30	6,21 68	0.80 0.66	••	21	1		20	PR	c	102
•		30	99	V. 00		• ••	•					
Poly(acrylic acid)	1.4-dloxane 8	30	76	0.50		4	19	-	82	os .	В	104
, sodium salt	squeous NaOH (2M)	28	42.2	0,64	12		4	-	50	os	c .	1 05
or, poston pen	aqueque NaCl (0, 012M			0,93	7		7	- 1	80	LV	B	1 00
	(1M)	25	16.47	0.90	12	•••	4	-	50	œ	С	- 105
	equeous NaBr (1.5M) 8	. 15	165	0.50	5		6	-	64	LV	c	107
	6		194	0.50	4	••	12	•	88	LS	C .	108
	(0,5M)	15	52.1	0.628	7		. 1		50	LV	C.	109
		25	50.6	0.656	7		2		80	LV	C,R	110
	(0.1)(0	15	25.4	0,755	7		1		50	LV	c	109 110
• • ,		25	31.2	0.755	7		2		80 60	LV LV	c c	109
	(0, 0514)	15	28,1	0.77	7		1 1		50	LV	c	109
	(0, 025 M)	15	16.3	0,84 0,85	,		2		80	LV	č	110
	. (0.01).0	25 15	17.6 13.6	0,89	,	••	1		50	LV	c	109
	(0,0110)	25	15.2	0.91	7	·- ·	2		80	LV	c	110
	(0, 00SM)	15	(44.2)	0.83	7		1	-	50	LV	C ·	109
•	(0.0025M)	15	(24.9)	0,89	7		1	-	50	LV	C	109
· · · · · · · · · · · · · · · · · · ·	a queout NaSCN										•	
•	(1.95M) e	30	154	0.60	5	••	6	•	64	LV	C	107
:		30	121	0.50	4		12	•	83	LS	c ·	,111
			•									· ':
•	*											134
Poly(acrylonimile)	Y -butyrolactone	20	34.3	. 0.730	5		•		40 30	LV(LS) SA	A,R B	135
(polymetized at -30°C)	30 .	57.2	0.67	6 5		6		30	SA	B	135
(polymerized at 60°C)	•	30	34.2	0.70 0.69		5	15		53	LS	D	136
•		50	28,7		5	•• .	4		40	يا	A -	134
	dimethylfomamide	20	17.7	0,78	5		1		90	LS	В	137
	duign America	25	16.6	0.81	5		. 8	-	27	SD	В .	138
		25 .	24.3	0.75		4	3	•	25	LS	C .	139
	•	25	29,2	0.75	••	16	3	- 1	100	os	C	140
•	(detonized DMP)	25	15.5	0.80	3	6	3	•	10	LS.SD	B-C	141
		25	57.4	0,75	••	6	0,3	•	1.5	EG	L	142
,		25	39.6	0.75		7	• 4	•	30	os	C	148
		25	44,3	0.70	••	7	2	•	20	LS	c	143
•		25	G0.8	0,65	••	21	8		140	LE	С	144
(polymerized.at -30°C)		30	29,6	0.74	7	••	4	•	30	SA	B	136 135
(polymerized at 60°C)		30	20.9	0.75	7	••	6 16	:	30 48	SA LS	D -	138
		30	33.5	0.72 0.76	9	6 .	3	:	58	DV)	145
		-35	27.8 21.7	0,746	12	••	9		16	LS	A.R	134
•	•	35 50	20.0	0, 762	22	••	4	- 1	102	ĹV	A.	154
•	dimethylacetamide	20	30.7	0.761	8	••	2	•	40	LV	A	134

` IV-10

Polymer	Solvent	Temp.	K x 10 ³	•	No. of	samples	Mol. Ran	ges_4	Method	Remarks	Rei
		(°C)	(mVg)		Ft.	W.P.	MI	10		·	
	dimethylacetamide	35	27.5	0,767	G	40	2	- 40	LV	٨	134
oly(acryleniatie)	(Cont, q')	50	27.4	0.764	6	••	. 2	- 40	LV	A	194
Cost' d.)	dimethyl sulfoxide	20	32.1	0.750	9		9	- 40	ĹV	٨	154
	cometry: willowine	20	28.3	0,758	9		9	- 40	ζV	A .	13
		140	20,5	0.75		6	4	- 40	ĽS		14
	ethylene carbonate	50	29.5	0,718	12	••	7	- 40	LV	٨	13
	hydroxyacetonizile	20	40.9	0.697	8	••	4	- 36	LV	Α .	13
	nydroxyacetomente	50	35.4	0.707	8	••	4	34	LV	A	. 13
•		0	. 23,9	0,740	6			- 40	LV .	٨	13
4.*	AQUEOUS HNO3 60%)	20	30.7	0,747	5		4	- 40	LV	۸.	13
		35	0.587	0,883	3 .		,		20		23
oly(bensyl acrylate)	butanone	35 25	6.85	0.75		6	5	- 27	LS	C	11
oly(buty) acrylate)	acetone	25	0.03	, 0. 13		•	•				•-
oly(1,1-dihydroper-				0,56	7	3	20	- 200	21	В	11
Jantopathy werkying)	benzofkioride	26.6	13	-	,	. 3	20.	- 200	ıs	В	11
	methyl perfluorobutyrate	26.6	12	0.60	•	. •	24.	200	_		
oly(N, N-dimethylacryl-						. 8	S	- 122	1.5	С	1.0
umide)	methenal	25	17.5	0.68	••	. 6	5 5	- 122	LS	c	10
	Water .	25	23,2	0.81	•-		11	- 122	is	c	.10
		40	20,0	0,65		4.	33	- 122 - 450	دا کا	. B.R	11
Poly(ethyl acrylate)	acetone	25	51	. 0.59	1.			- 60	مر 06	3.R	11
	•	30	20.0	0.66	\$		16		O6	C C	11
	benzete	30 .	27.7	0.67	••	7	. 6	- 67			11
	butanone	30	2.68	0.80	\$.	••	48	- 700	72	B-C	1.7
	chloroform	30	31.4	0.68		- \$.	9	- 54	OS 	C	
	ethyl acetate	. 30	26.0	0.66		- 5	9	- 54	OS	C	. 1
oly(bexadecyl acrylate)	methanol	30	48.7	0.55		6	, G	- 70	os	C	1
,,	heptabe	20	1.74	. 0,82	6		1	- 10	LS	В	11
oly(isopropyl acrylaus)	acetons	30	13.0	0,69	G		6	- 30	LS	В	. 1
Attendantis malema	penzene .	25	14.9	0.70	9	·- ·	7	- 70	. OS	В	1
		25	12.4	0.703	20	••	4	- 100	LS	B.P	1
		30	11.6	0.71	4	••	. 7	- 20	LS	В	1
•	bromobenzene	25	11.3	0.704	20	••	4	- 100	เร	В .	1
	Chollederrene	60	11.6	0.698	20	••		- 100	15	B .	. 1
	chloroform	20	14,1	0.72	Б.		7	- 80	LS	, B	1
			• • • •		•			•			
(isolacile)	2, 2, 3, 3-tetrafluoro-	95	19.7	0.697	. 1		10	- 65	เล	B	1
•	haobauoj	25		0.703	6	••	B	- 110	LS	В	. 1
(alactic)		25	17.3	0.703	6	;	. 50	110	Ľ	3	1
(syndiotectic)		24.	15.9		4		10	- 63	18	В	1
(Louette)		60	17.9	0,692			20	- 110	ıs	В	1
(atactic and syndiotec	(lc)	60	14.7	0.704	6	. ••			os.	•	i
Poly(methyl acrylate)	acetone	20	(7,40)	(0.76)	- -	2 · •	7	- \$2		B.R	1
•	•	25	6.5	0,77	8		28	- 160	LS .	B, K	1
	•	25	19.6	0.06	9	••	30	- 250	iS CC	-	1
		30	28.2	0.62	7	••	4	- 45	os ~	В	_
	penzene	25	2.58	0.85	4		80	- 130	OS		1
	. ••	30	4.5	0.78	7	3	7	- 160	ម		
		30	3.56	0,738	6	~	25	- 190	LS	B,R	. 1
•		30	4,59	0.785	6		15	- 140	OS	В	1
•		35	12.6	0.71		· 5	5	- 30	OS	C	1
	butanone	20	3.5·	0,81	13 .	,	6	- 240	کا	A-B.R	1
•		. 25	14.1	0.67	4	••	17	- 68	ᄯ	В	1
	•	30	3,97	0.772	6	••	25	- 190	کا	В	1
		35	(24)	(0.61)	 ·	3	8	- 47	LV	c .	1
•	Atachiel mast	30	3.51	0.793	4		50	- 190	LS	В .	٠,
	diethyl malonate			0.69	-:		24	- 148	LS	A	1
	ethyl acetate	30	1)	0.50	6		20	- 160	LS	8	:
		0 62.5	68		4		40	- 105	ıs	В	
	2-methylcyclohexanol		68	0.50			22	- 180	រេ	В	
	toluane	30	7.79	0,697	6			- 69	rg T	Ā	. ;
		35	2)	0.60	••	7	12	- 07		~	•
	butanone/2-propagol									_	
		8 30	81	0.50	5		29	- 140	کیا	8	1

									Method	Remarks	Ref.
Polymer	Solvent	Temp.	K = 10 ³		No. of s	·	Mol. Rang	e _4	Wethod	KEMMA	MEL.
•		[°C]	(ml/g)		Fr.	W.P.	Mx				<u> </u>
			-				•			•	
farmenti	butanone/2-propanol	27,5	54,4	0,80	4		14	• 83	گ ا	C	108
Cont' d.)	(-10 -10		72	0.50	4		60	- 190	LS	9	129
•		30	290	0.40	6	••	. 37	- 250	LS	B .	125
/ 201 St. Command	(42/68 vol) (9 20	290	0, 10	•		•				
oly(1-methylphenyl					8		2	- 110	SD	A	346
czylate)	buryl acetate	25	14.7	0.63	•						
oly(morpholinocarbonyl-							,		LS	С.	338
thylene)	dimethyliormamide	25	16	0.65	,		,		LS	c	238
	aqueous NaCl (0.1M)	20	64	0.68	3		•				
oly(piperidinocamony)-			•		_		,		LS	C	888
thylene)	dimethyllormamide	25	32	· Q.56	1		71	- 161	15-	A	117
oly(propyl acrylate)	paranone	30	15.0	0.687	4		"	01	_		,
orldistly.						NA BERTS	PATIVES				
:	1.4	POLY(G	-SUBSTITUTED	ACRYLLC	ACID) V	MD DEWY					
		40	1.03	0.82	••	9.	17	- 120	LS		339
oly(benzyl methacrylate)	benzene	30	1.05	0.63	a	••	100	- 600	LS	Æ	150
oly(butyl methacrylate)		25		(0,77)	• ••	3	8	- 300	13		151
	benzene	30	(4,0).	0, 61	30		25	- 260	LS	В	152
	butanone	223.	1.56	0.68	5		11	- 670	LS	٨	150
		. 25	9.1	(0.89)	3	••	. 67	- 132	OS	. с	155
		30	(1.18)	(0.89) 0.78	8		. •	- 800	كا	B.R	154
	chioroform	20	2.9		6		8	- 80	OS		15
		25	4.37	0.80	Ŕ		30	- 260	LS	В	152
	2-propanol	9 21.5	29,5	0,50	-	, 	4 .	- 800	LS.	B.R	164
		8 21.5	38	0.50	9	· 	40	- 170	LS	В	150
		8 23.7	36.6	0.50	5	••		• ••	_		
Poly(tent-butyl meth-			•				46	- 870	LS	٨	15
actylate)	butyl acctate	25	22.0	೦.83	Ç		40		_		
Poly(4-text-butylphenyl	· · · · · · · · · · · · · · · · · · ·						. 6	- 350	LS	•	34
methacrylate)	acctone	20	5,75	0,68	15.	••		- 2500	rs .	_	94
uncumer)	bromobenzene	20	4.1	0.71	. 1		15	- 2500	LS		- 34
• • •	carbon tetrachloride	20	4.1	0.71	7	-,-	. 20	- 200	. 15	A-8	34
Poly()-(N-carbethoxy-	chloroform	20	2,4	0.78	15		6	-	LS		36
phenyl)-methacrylamide		unc.	0, 00) 15	1.55	4		20	- 74	u .	•	. 36
buenari-meniaciaminae	dinethyllomamide	unc.	This relation	not follo	wed 5	••	48	- 140	ئا		30
	ethyl acetate	unc.	0.00446	1,25	S .		26	- 11	L3		•
	Ethyr no		•								34
Poly(4-chlorophenyl	benzene		9.2	. 0.66	. 8		10	-· B10	2.5	A .	34
methacrylate)	. carbon tetrachloride		20,0	0.58	R		70	- 610	LS	- A	34
	diorane		6.1	0.70	8		. 10	- 670	เร	A .	
	· · · · · · · · · · · · · · · · · · ·		•		•					•	. 34
Poly(cyclohexyl meth-	\.	30	8.4	0.69	5	••	80	- 200	LS		. 3
acrylate)	ben zene	g 23	33,7	0.50	5	••	57	- 445	LS	*	
	butanol	25	5.79	0,68	e		57	- 560	นร	9	3
	putanone	30	7.0	0.66	5		80	- 200	LS		3
		30	•								_
Poly(dodecyl meth-		23	8.64	0.64	8	•-	26	- 360	LS	A	1
acrylate)	butyl acctate		32.2	0.50	7	••	26	- 360	LS	٨	. 1
	Mobrobal societe	6 13 6 29.5		0.50	7	••	27	- 240	Ľ	. *	. 1
	pentanol	g 29.3								•	
Poly(2-ethylbutyl			2, 21	0.77	8		48	- 332	LS	W.	1
methacrylate)	putanone	25		0.50	8		. 48	- 332	LS	۸ .	1
	2-propanol	0 27.4		0.19	10		20	. 263	LS	A	
Poly(ethy) methacrylate		23	2.83			1)	63	- 1200	LS	c	•
	ethyl actiate	35	8.6	0.71		.,	22	- 130		В.	
	2-propanol	9 36.9	.47,5	0,50						•	
	butanone/2-propanol						20	- 253	کا		
	(1/7 vol)	A 23	47.3	0.50	10		20		-		
	athyl acotate/ethane	al				٠	78	- 500	رکا	1/	
		35	47,6	0,53	G		78 F0			•	
	(2/9 voD			0.50	G			- 420			

IV-12

Polymer	601vent	Temp.	K x 10 ³	•	No. of	samples	Mol. Ran	⊌t, ge	Method	Remarks	Rei
		[°C]	[ml/g]		Fr.	W.P.	Мх				·
Poly(bexadecyl		•									
methacrylate)	benzene	21	5,9	0.71	а		130	- 440	SD	 B	165
	carbon tetrachlorida	21	2.37	0.78	š		130	- 140	SD Da	3	165
	heptane	21	43.92	0,75	5		120	- 440	SD SD	B'	16
		25	95,1	0.56	9		20	- 110	LS	•	18
Poly(hexy) methacrylate)	· butanone	23	2.12	0,78	8	••	6	- 41	צו	A .	165
	2-propanol	0 32.6	43.0.	0.50	8		6	- 41	ᄺ	Ä	160
Poly(isabuty)									_	••	
methacrylate)	acetone	25	0.199	0.94	6		300	- 1100	LS	c .	16
	butanone	20	5.56	0.73	6		300	- 1100	LS	č	160
		25	8.61	0.70	7	••	300	- 1100	ıs	c	166
	•	30	7, 47	0.71	6		300	- 1100	LS	Ç.	166
		44	2.18	0.79	6		300	- 1100	کا	c ·	166
Poly(methacrolain)	dimethylformamide	20	2.8	0, 97		,	0.5	- 2	OS,CR	1	204
Poly(methactylic acid)	methanol	26	242	0.61	6		4	- 20	os .	В	147
	aqueous HC1 (0.002M)	30	66	0.50	1		10	- 90	LV	c ·	148
	aqueous NaNO ₂ (2M)	25	44.9	0,65	. 6		8	- 70	06	B ·	149
Poly(methecrylonitrile)	acetone	20	95.5	0.56		4	35	- 100	os os	c	202
	dimethy) formamide	29_2	306	0.803		16	0.6	- B	LV	C,H	203
Poly(methyl butacrylate)	• .	0 13	57.0	0.60	,4	••	6	- 60	<u>.</u> گا	۸٠	168
	bulanone	80	5.43	0.73	10		7	- 430	کا	Α .	168
Poly(nicthyl ethacrylate)	benzene	20 .	2.35	0.82	6	••	16	- 110	เร	A .	168
.,,,	butacone	30	4,29	0.75	10		4	- 200	ıs	Ä	168
. •	2 6-Aimethul-4-		-, -,	•••••	•••		-	- 500		••	200
	•	 9 11.4	67,6	0.50	10		4	- 200	LS	Α .	168
Poly(methyl_methacrylate		1		3,20	••		•	-44		••	200
Atactic	, Acélone	20	5.5	0,13	7	••	7	- 700	SD	A-B.R	169
		20	3.90	0.75	1.		÷	- 700	SD SD	A-B	169
•		25	7.6	0.70	9	,	8	- 137	IS.	3	170
.•		25	6.76	0,71	10		3	- 700	SD	A-B	171
	•	25	1.6	0,70	14	,	2	- 740	LS,SD	B-A	172
		25	6.3	0.73	7	••	2	- 780	LS LS	A-B.R	173
	:	25	9.6	0,69	4	••	180	- 350	LS	A-8	174
•		25 .	7.5	0.70	4	6	3	- 98	LS	B-C	175
•		25	2.45	0.80	9	. .	6	- 210	os ·	8-C	176
		25 25	6,59	0.71	6	••	5	- 41	os	B	177
······································		30	7.7	0,70	6		6	263	US US	A-B	178
		39	6, 4 0	0.72	6	•	5	- 41	05	8	177
		46	6.18	0.72	6		3	- 41	06	B	177
	Acetonitrile	30	39.5	0.50	6	••	10	- 86	LV	A-0	178
		9, 45	48	0,50	6	••	10	- 260	LV	A-8.R	179
		.50	29	0.54	6	••	10	- 260	LV	A-8	180
		GS	9,8	0.64	δ.		10	- 260	LV	V-9	180
	henvene	20			7		70	- 700		A-8	169
	our sout.	20	8.3ú	0,73 0.70	7		•	- 90	SD .	A 10	181
		20 25	15.1 7.24			••	. B	- 100	SD		182
		25 25		0.76	10				OS 1.5	В	
•			5,5 3,80	0.76	11		2 24	- 740 - 450	کا د	A-B,R	175
	•	25 25		0.79	5 7		0.05	- 450	کا 13		183
*		30	82 5,2	0.55 0.78	7 8.		0.US 6	- 250	EB	A.L	178
		30	5.2 6.27	0,76	¥ . \$	••		- 250	LS OS	A-B.R	185
		20			9		4 0,02	- 73	os os	٨	185
			104	0.60	5		0.92			A,L	
		30	195	0.41		•-		- 2	21	A-8, L	178
		39	6.74	0.75	. 6	 .	\$	- 41	os or	B D	177
	A	53	6.52	0.76	G		á	- 41	OS	В	.177
•	butanone	25	8.8	0.72	. 9	•• .	8	- 137	LS	B,R	170
		25	7.1	0,72	7		41	- 330	ម	A-8	174
•		25	6.8	0.72	4	6	3	- 98	LS	8-C _.	175
		25 .	9,39	0.68	15		1G	- 910	ಚ	A -B	186
	•	35.4	50,5	0.50	4		13	- 68	A3	A -D'	167
	chloroform	20	9.6	0.78	18		1,4	- 60	Q\$		188

Į٧.	13

Polymer	Solvent	Temp.	K x 10 ³		No. of	samples	Mol, Rang		Method	Remarks	Ref.
	•	f _o C1	(mt/g)		Ft.	₩.P.	M×	10			
ly(methyl math-					_		6	- 100	OS	В .	182
crylate) (Cont' d.)	chloroform (Cont. q.)	20	4.88	0.82	8	. ••	8	- 200	SD	A-B,R	169
atactic		20	4, 85	0.80	9		3	- 780	LE	•	73,189
		20	0,0	0, 79	12	••	8		LS	8	170
	•	2 5	4.8	0.80	9	••	•	- 137	LS LS	A -B	174
·		25	3.4	0.83	6	. 	40	- 330	œ	B	177
		25	5,81	0.79	6		5	- 41	LS Al	A -B	178
(HARDE LABO)		30	4.3	0,80	••	8	13	- 263	OS	8	177
		39	5.02	0.80	6		5	- 41	os os	В	177
		-53	9.90	0.79	Ç		5	- 41	ند کا	В	190
		wac.	5.1	0.79	15	••	7	- 400 - 171	۲۷	A-B	191
	о-суппсос	0 159.7	57.5	0.50	4		6.6		كا	B-C	175
4.5	1.2-dichlorocthane	25	17.0	0,68	. •	6.	3	- 98 - 263	LS LS	ρ-C Α-Β, R	178
		30	5,3	0,77		1	6	-	SD	~ ~ 3 , K	192
	ethyl acetala	20	21,1	0,64	8	34			r _A	A-B	191
•	3-heptanone	8 33.7	69.1	0.50	. •		6.6	- 171	LS	A-B.R	179
•	4-heptanone	8 33.8	48	0.50	5	-•	1	- 172	TA.	A-B	178
•	methyl isobutyrate	30 .	9.9	0.67	6		19	- 260		A -B	178
	methyl methacrylate	30	6.75	0.72	3	••	13	- 370	Ľν		199
	aitroethane	25	5.70	0.74	. 2	C	10	- 200	<u>ا</u> ح	c ·	178
	3-octane	8 72 .	50	0.60	. 3		13	- 260	LV	A-B	178
•	реприлої	8 84.4	67.9	0.80	4	••	6.6	- 171	LV	A -B	
	tetrachloroethane	26	12.8	0.73	6	••	5	- 41	os ~	B B	177
		\$3	12.2	0.79	6		5	- 41	OS	•	1,,,
•	2, 2, 3, 3-tetrafluoro-				· .						194
	propanel	25	7.2	0.79	7		7	- 95	LV	A	174
	toluene	25	7.1	0.73	7		4	- 330	LS	А-В -	
		25	8,12	0,71	, G		\$	- 41	O\$	В	177
• • • • • • • • • • • • • • • • • • • •		- 25	18	0.50	10	••	0.2	- 7	Q5 	A.L	195 178
•		30	7.0	0.71	. 6		19	- 263	LV	A-B	
*	•	39	7.24	0.12	6		5	- 41 -	OS	B	177 177
		53	6,63	0,73	. 6	••	5	- 41	30	B	111
	butanone/2-propanol										174
	(58/45 vob	23	47.0	0.55	6		40	- 300	LS	A-8	174
	(50/50 vol)	Q 25	59.2	0,50	7		30	- 280	LS 	A-B	196
*		0 25	42,8	0.50	. \$	•• `	77	- 49 0	13	∧-8	186
· · · · · · · · · · · · · · · · · · ·	methanol/toluene			•		• .					
	(9/5 ▼oD	0 26.2	55.9 .	0.80	3	••	60	- 500	រេ	A-B	.156
botactic	acctone	30.	23.0	0.63	7	••	5	- 128	. LS	A-B	199
•	acetonitrile	20	130	0.448	5	·	3	- 19	ΓΛ	A	. 198
	•	8 27.6	75.5	0.500	- 5	, ·	3	- 19	LV	۸.	198
	•	85	46	0.646	S .	••	3	- 19	LV	٨	198
		80	26.2	0.602	. Б	 .	5	- 19	LV	A	198
	benzene	30	5.2	0.76	5		6	- 128	LS	A-8	199
	р-сутьеве	0 162.1	56.6	0.50	4 .		7 .	- 131	ΓΛ	A-8	191
	3-heptanone	g 40,0	87,0	0.50	4 .	••	7	- 131	LV	A-B	191
•	propunol	0 75.9	76,1	0.50	4	••	7	- 131	LV	A-B	191
•	2, 2, 3, 3-tetrafluoro-		•								•
	propenol	26	7.05	0.78	11	·	2	- 100	LV	В	. 194
	butanone/2-propanol			•							
	(1/1 vol)	8 30.3	90.0	0.50	4	••	7	- 131	ΓΛ	A-D	191
ly(octadecy) meth-	4										
aylate)	tetrahydrofuran	30	2,5	0.75	••	4	20	- 170	کیا	C.H	200
oly(actyl methacrylate)	butanol	g 16.8	26.6	0.50	10	••	23	- 1250	31	3	261
, . ,	butanone	23	4,47	0.69	10		33	- 1250	کا	В	201
ly(N-phenyl meth-											
rytamide)	acotone	20	28,2	0.75	8	••	10	- 320	Ľ		970

VISCOSITY-MOLECULAR WEIGHT RELATIONSHIPS

Polymer	Solvent	.Temp,		. 4	No. of	samples		L. Wt		Method	Remarks	Re
		[°C]	(m1/g)		Fr.	W.P.	M	10	<u> </u>		•	
			1.5	POLY(VINYL	ETHERS)						•	
Polyl(hexadecyloxy)												
thylene)	heptane	21	70.8	0.50	. 6		0,5		3	SD		
Poly(methoxysthylene)	ben zene	20	76	0.50	13		1	•	45		B,L	20
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	butanone	30	127	0.36	13	••	1	•	45	عد دا	3	
oly[(octadecyloxy)					2,1		•	•	43	w	B .	20
thylean]	benzene	25	170	0.47		7	0.1	_	1.6	LS	D,H	20
•	. letrahydrofuran	30	224	0.35		. 7	9.4		11	LS	D,H	20
oly(vinyl methyl ether)	, see Poly(methoxyethy	(lens)					•.•		••	_	D.i.i.	
·		1,6 P	OLY(VINYL	ALCOHOL),	POLY (VIN	YL HALIDE	. 5)				•	•
							•					
oly(chlorottifluuro-	2,5-dichloroben zotri										•	
thylene)	Nuoride	130	6,15	0.74	1		7	-	51	os	В.	. 53
oly(vinyl alcohol)	Water.	25	20	0,76	. 6		0.6	-	2.1	20	₿	20
	*	25	200	0.50	4	••	0.9	•	17	ED		20
		25	140	0,60	3		1	•	7	SD	9	21
•		30	66.6	0,64	8	••	0, G	•	16	os	B	21
		20	42, R	0.64	-:	14	.1	-	80	کا	c .	21
	•	80 30	45, 3 94	:0.64	:	••	1	•	60	15	A,R	21
	phonol/water (85/15	-		0,56	••	\$	10	-	46	ഥ	B	21
oly(vinyl bromids)	chelopexations	25 25	24,6 32,8	0.80	••	21	3	•	12	LV	. 8	. 21
	tetrahydrofuran	23	-	0.66	7		2	-	30	2.1	B .	21
	methanol/tetrahydro-	. 23	15.9	0,64	7	••	3	-	10	LS	В	21
	furan (17/83 vol)	20	38.a		7						•	
ly(vinyi chloride)	benzyl alcohol	A 155,4	156	0.80 0.80		 '	2	-	18	LS	В .	211
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	chlorobenzene	20	71,2	9.50 9.59	9 7		4	-	35	LS	В	215
	cyclobexanone	20	11.6	0.85		<i></i> . 6	3	•	19	SA OS	B	. 350
	-,	-20	13.7	1.0	7	5	2	•	. 10	os ~	C	221
		20	112.5	0.63	5	3	7	:	13 15	O6 .	C.D	222
		25	12.3	0.83	11.		2	:		os os	DH	557
		25	24	0.77	13		.3	-	14	OS ·	•	223
		. 25	204	0.56	,,	•••	2	•	15	os .		224
	•	25	174	0.55	,	••	6	-	22	دی داد	c c	226
٠ ,	•	25	8.5	0.75	5		•		20	در گا	В	220
•	•	25	13.8	0.78	28	· 	1		12	ᄕ	A.B.R	225
*.		30	16.3	0.77	6		3	_	19	SA	B	220
	tetrahydrofuran	20	3.63	0,92	20		2		17	OS	B .	209
		25	15.0	0,77	22	••	1	-	12	LS	A.B	228
		25	16.3	0.766	23	••	2	÷	30	LE LE	A. B.R	230
	,	25	49.8	0.69	5	••	4		40	ഥ	A-B	231
		- 30	63.8	0.65	9	•• .	9		32	צו		222
		30	83,2	0.83	• •	-	3		19	SA	D	220
	•	30	219	0.64	16	••	5		30	LS		233
y(vinyl fluorida)	dimethylformamide	90	6,42	0.80.	•-	9	14	•	66	V2	D	235
• •			1.7 PO	LY(VINYL E	TERS	•					•	:
	•	-			•						•	•
y(allyl acctate)	benzene	27	86	0.52	8		۸ ۱	_	۸.	_		
y(vinyl acetate)	acolone	6 (₇₁) =	0.40		90		0.1	•	0,3	CR	•	216
		18	24.5	0.00725M ^U	51	••	0.3	- 1	150	عا	Α .	236
		20	15.8	0. <i>87</i> 0. <i>8</i> 9	6		4	-	34	0 6	8 .	237
		25	21.4	0.89	6		19	•	72	LS		238
		25	18.8	0.68	ů.	••	4	•	34	OS	3	237
		25	14.6	0.72	, ,	1	,			ᅜ		238
•		23	10.8	0.72	10	6	0,7	•	1.3	EG	C.L	240
		30	17.6	0.68	16	••	0.9	• .	2.5	EG	B, L	240
		30	8, C	0.74			2		63	OS .	A-8	241.
		30	17.4		8	••	9		66	کا	⋏ -9	242
				0.70	,		7		68	OS		243

201	VAL	D.TVI	FSTERS)	

Polymer	Solvent	Теля	-	•	No. of	remples	Mol. Rang	3C _4	Method	Remarks	Ræf.
		۲°C] [mVg]	. <u> </u>	Pt.	W.P.	М×	10			
		30	10.2	0,72		8	3	- 12£	ĿS	c	264
Poly(vinyl acetate)	acctone			0.72	11		6	- 150	کنا	A	236
(Cant' d.)	(Cont. q')	30	10.1	-0. 00723M	.90 22		0.3	- 150	LS	A	236
•				0.7)	6	••	4	- 34	os	A	236
•		46	13.8				24	- 572 - 5.	كا	B .	246
	acetonitrile .	25	10.2	0.71			ท	- 153	เร	А-В	247
		30	41.5	0,62	4				LS	A -B	248
	benzene	30	55	0.6\$	5		34	- 107	US O6))	249
		30	56.3	0.62	24		3	- 86	LS	В	250
		30	58.3	0,62	12		7	- 64	-		251
•		35	21,6	0,675	14		5	- 40	LS 	A -B	
	butanone	25	15.4	0.71	ũ	••	25	- 246	LS	A	252
		25	42	0.62	15		2	- 120	ad, La	A,B	253
		30	10,7	0,71		13	3	- 120	LS	c	244
	chlorobenzone	25	110	0.60	9	**	0.15	- 7	OS	٨	195
		25	94.4	0.56	G	••	4	- 36	OS	A	236
*		53	53.7	0.60	ε		4	- 84	20	A	236
		67	26. 9	0.65	. 6		•	- 54	20		836
. •	chlorofomi	20	15.8	0,74	٠,	· ? .	7	- G8	06		243
		25	20.3	0.72	5		. 4	- 34	OS	Α .	236
	•	53	14.7	0.74	٥		4	- 34	os	A	236
	dioxane	25	11.4	0.74			4	- 34	os	В	237
• .	, , , , , , , , , , , , , , , , , , ,	\$8.0		0.75	5		4	- 34	os	₿ .	237
• •	ethanol	9 56.9		0.50	5	••	. 4	- 150	೦ಽ,ಟ	A	23G
•		30.2	32	0.68	4	••	16	- 154	LS	A-B	247
	ethyl formate			0.50	. 3		4	- 150	OS,13	, Y	236
	•	8 26.5	92.9	0,50	18		5	- 63	LS	A-B	255
•		B 29	•	0.50	10		. 0.8	- 150	OS,LS,V	•	236,245
	rnsthanol	9 A.			6	••	4	- 22	os	В	237
. •	•	25	38.0	0.59	•	18	3	- 120	LS	ć	244
••		. 30	31.4	0.60			4	- 20	os .	8	- 337
		53	16.6	0.59		•••	. •	- 40	. ~	•	
	6-methyl-3-hepta-						• • •	- 63	LS	A-8	258
		6 Ce	82.0	0.50	g		14 9	• 150	عد. ۵۵	A	236
	·	9 66	78.0	0,50	3			- 69	LS:		247
	4-methyl-2-pentation		44,9	0,60	5		12				237
·.	toluene	25	108	0.55	. 4	••	4	- 15	os	9	237
		67	156	0.49	4		. 4	- 15	os	B	
	1, 2, 4-trichlorehenzen	.c 35	33.0	0,623			5	- 40	LS		251
•	heptane/3-metuyl-2-		• •								٠.
	phretione										
•	(27.3/12.7 vol)	25	92	0,50	Б	••	25	- 287	Ľ	. c	244
Poly(vinyl benzoate)	xylene	g 32.5	62.0	0.50	S		10	- , 24	œ	В	234
Poly(vinyl buryrate)	benzene	30	11.15	0, 735	••	4	3	- 15	os	Ç.	256
Poly(vinyl caproste)	benzene	30	15,47	0,659		4	. 3	- 126	os	C	256
Delegation of the sections	*********	•	•								٠.
penzosto)	Valei	30	G4.0	0.64	7		6 .	- 33	LV	В	238
	butanol/batanona	-,-			٠						
	· (47/53 vol)	e 60	73	0.30	1	••	6	- 35	LV	B .	936
Baladulaul fa	acctone -	30	29.3	0.63		9,	9	- 41	LV	c	257
Poly(vinyl formate)	•	30	14.1	0,717		9	3	- 41	LV	С	257
	scatonitile	- 20	20.7	0,68		8	3	- 41	LV	c .	. 257
	dioxane		37.6	0,63		7	3	- 24	LV	c	267
	methyl acetate	30		0.722	••	7	3	- 24	LV	c	257
•	methyl formate	30	14.1			4	.` 5	. 20	06	c	256
Poly(vinyl mobulytate)	penzene .	30	11.05	0,711					06	c	256
Poly(viny) isocaproate)	beazene	30	51.0	0.575	••	4	3	- 17		c	258
Poly(vinyl pivalate)	accione	25	2.89	0.77	4	••	40	- 217	LS	C	200
• • • • • • •	butanone/methanol									_	25.6
• • • • • •	butanone/methanol (0,897g/mt)	30	53	0.50 - 1,06	2		222 1	. 344 - 6	LS LV	c c	258 261

77/	- 1	•

Polymer	Solvent	Temp.	K = 103	•	No. o	í samples	R	ol, Wt. ^{ange} _4	Method	Remado	, Re
·		(°C]	[m1\8]		ft.	W.P.	М	x 10			
			1.8 POLY(ST	YRENE) AN	O DERIV	ATTVES				٠	·.
oly(4-bromostysene)	benzene	0 20	95.5	0.53	10		3	- 30	os	В	34
		8 26.3	50.0	0.50	5		84	- 250	LS	A,R	34
	chlorobenzene	30	7.49	0.69	5		\$9	- 400	23	. A	34
•	toluene	30	18.2	0.67	S	••	63	- 400	LS	Α ,	. 34
sly(2-chlorostyrene)	toluene	30	14,3	0.65	10	••	23	- 143	LS .	٨	85
ily(4-chlocostyrese)	. benzene	30	30,6	0.56		8	10	- 200	.	C	. 35
• •	butanone	25	29 .	0.59	7	••	3	- 140	LS	B,R	35
•		. 30	3.52	0.16	6	••	. 17	- 270	OS	В	35
	chloroben sene	30	2.19	0.80	E		17	- 270 - 200	os	B C	· 35
	chloroform	30	14.8	0,65		8	10	- 200	ls Ls	c ·	35 35
	dioxane	30	17.6	0,62	••	. 8	10 2	- 40	LS.)	35
	toluene	20 26	24.1 13.2	0,606 0,645		7	1	- 244	LS.	B .	35
		30	13.2	0,64	6		3	- 140	دا کا	B. R	35
ė		30	11.8	0.65	. 1	••	21	- 140	<u>در</u>	A.	34
•		30	5.97	0.63	į		17	- 270	OS	В	35
iy(4-cyclohenylitytene)	bestane	30-	32.5	0.54	6	4-	4	- 30	os .	- A-B	26
-,,unjeijide)	toluene	30	10.6	0.69	ì	· ••	2	• 30	OS	A-8	26
ly(2,5-dichlorostyrene)		21	12.6	0,69	9		7	• 66	کا	•	35
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ethanol/ethyl acetate										
	(1/15 ₩0	8 30.5	35.5	0.50	8	••	50	- 130	LS		35
ly(3,4-dichlorostyrene)	chioroben sene	30	4.29	0.72	7	••	8	- 61	O 6	- A	25
	o-dichlorobenzene	30	4,11	0.73	7	••	6	- 51	O6 .	A	35
	butanol/butyl acetate							•			•
. •:	(1/13 W)	0 32.9	•	0,50	8		40	- 540	LS		35
ly(2, 4-dimethylatyrene)	tolucae	30	9.52	0.70		•	5	- 120	LS	, C	38
ly(4-lodostytens)	dioxane	20	33	0.51	10	6	10	- 116	LV	B-C	36
ly(p-isoptopylstyrene)	topiene	25	12,2	0.69		5	14	- 75	LS .	B,C	26
ly(o-malboxystyrene)	butanone	30	18.6	0.59	6	••	13	- 25	ī.g	A-B	. 86
	toluene	30	6.40	0,71	. 5	••	13	- 35	IS .	V-8	96
	methanol/toluene	·		•	• •						_
•	(25/75 vop)	0 30	57.5	0.50	4	••	15	- 30	LS	A-B	36
ly(p-methoxystyrene)	putanone	30	3.75	0.73	. 5	••	13	- 75	LS	A-B	36
		35	8.6	0.68	6	••	1	- 100	18.	3	35
	chlorocyclohexane	25	17.7	0,63	16	••	92	- 220	LS	A .	. 86
	pentyl acetate	25	85	0.52	16	••	22	- 220 - 220	ts LS	A .	36
	tolucne	25	10.5	0.70 0.73	16 5	••	22 13	- 220 - 75	جا كا	- A· B	38
		30 30	5,28 18,0	0.73	8	••	13	- 100	يط کا	8	85
	methanol/toluane	30	10.0	0,02	٠	••	•	- 100	w	•	
	(28, 1/71.9 vol)	9 30 ·	62.1	0,50	6		1	180	LS	В .	36
ly(or-methylatyrene)	(0, 0, 1,				•		•		•		
anionic. (ca. 50%	benzene	30	10,2	0.72	••	9	4	- 170	LS	A	31
hetero, ca. 40%	cyclohexane	A 34.5	13	0,50	••	10	4	- 750	13,06	Α .	32
Nugio)		9 37	78	0.50	••	9	9	- 400	īs.	A	12
		9 38	76	0.50	••	6	2	- 66	LS .	A	. 32
	•	9.86	76.0	0,50	••	9	4	- 170	15	A	32
		99	71.3	0.51	•-	9	3 -	- 140	LS	A	32
	trans-decalin	Ð 9.5	67	0.50	••	9.	8	- 750	20,21	A	32
	tolume	25	7.06	0.744		9	•	- 750	16, 0 5	٨	32
•		25	7.81	0,73	••	e	3	- 60	SD	A	32
	•	30	10.8	0,71	••	15	2	- 66	เร		2,92
cationic	benzege	. 20	24,9	0.647	4	•-	14	• 91	OS	₿ .	3,2
10%-hetera, 90%-syndi	ojcyclohexane	0 32.5	66,0	0.50	5	•	2	- 370	LS	B .	32
19%-hetero. 80%-syndi	(م	9 33.3	72.7	0.50	8	••	2	- 18	1.S	8	32
•	toluene	8 30	2,2	0.80	C	••	1	- 100	LS	В	32
	benzene methanol										
	(79.4/20.6 val)	30	76.6	0.50	4		14	- 91	OS	8	821

POLY(STYRENE) AND DERIVATIVES .

IV-17

Polymer	Solvent	Temp.	K x 10 ³	•	No. c	f samples	Ren		Method	Remarks	Rel
		[°C]	[ml/g]		n.	₩. P.	Мх	10			
	benzene	30	7,36	0.76	9		8	- 116	06	A	390
oly(m-methylatyrene)	cyclohexane	30	11,76	. 0,10	1		16	- 83	os	A	330
	athyl-acetate	30	17.42	0.64	7	••	15	- 83	os	A	330
oly(p-mothylstyrous)	•	e 16.4	70	0,50	6		16	- 200	LS	A	331
orly(b-membarshees)	toluene	30	8.86	0.74	9	••	19	- 180	LS	A	331
nisamathulahaana\ eetiti	m of substituent, unspec	-	•								•
ury(areary ary) care,,,,,	cyclohexane	20	22	0.68	6		11	- 133	SV	A .	832
oly[(2, 3, 4, 8, 6-pentallus											
ut) ((a, o, o, o, o parame	4-methyl-2-pentanone	20	4,37	0,736	••	31	10	- 260	OS	c	364
oly(styrene)						•					
Atactic	bensene	20	6.3	0.78	18	•••	1	- 800	6D	٨	270
		20	12.3	0,72	. 7	••	0.6	- 620	SD	A,R	271
		25	22.7	0.72	••	7	0.2	- 0.8	CX.	C,L	272
		25	41.7	0.60	9		0.1	- 1	CX.	B.L	272
	•	25	34,0	0.65	11	••	0,04	- 0.8	EG	A.L	273
		25	9.52	0.744		••	· 3	- 61	OS	Α .	274
		25	9,18	0.743			3	- 70	LS	A .	275
•		25	11.3	0.73	10	••	7	- 180	06	٨	276
•		34	9.8	0.737	٠.	••	8	- 80	. DA	· A	271
	butanone	25	29	0.58	16		1	- 180	Ľ	A,R	276
		25	20.5	0.60	5	••	7	• 150	os	· A	276
	•	25	19.5	0.635	. 7		12	- 280	LS	A ·	279
•	•	20	23	0.62	. 1		40	- 370	LS	В	280
•	•	84	28.9	0,60	10		, B	- 80	DV		81,287
	butyl chloride	40.8	15.1	0,659	5	•-	29	106	کا .	B .	281
	chloroben zene	25.7	7.4	0.749		••	62	424	is	B	28 21
	chloroform	25	7.16	0.76	8	••	12	- 280	LS.	A	279
•		25	11,2	0.73	5	••	1	- 160	OS	A.	284
:		3 0 ·	4.9	0.794		••	19	- 373	0 6	В	28
•	cyclohezane	28	108.0	0.479		••	0.6	- 69	OS LV	A.	274
**	•	e 34	82	0.50	15	••	1.	- 70	OS .	. 🔏	28
,		0 34	90.2	0.50			0.6	- 69	ري کا	A,R	28
		0 34.5	B4.6	0,50	6	••	14	- 200 - 42	LS LS	A.T.	26
	•	e 35	80	0,50	.3	••	8 .	- 200	SD	B ·	28
	•	6 35	70	0.50	8	••	4	- 137	16	9	28
		0 35	76	0.50	10			- 137	ıs	В	. 28
•		40	41,6	0.554				- 137	LS.	3	28
		45	34.7	0.575				- 137	LS.	В.	28
*		50	28.9	0.599			4	- 52	Ľ	A	28
		50	36.4	0.584	7		14	- 200	Ľ	Λ	29
	decalin (100%-trans)	20	149	0.44	7	•	14	- 200	15	Α .	29
• •		23	98	0.48	•••				ıs	. A	29
•		e 23.8		0.50	7		. 14	- 200	ı.s	,, A	29
•		25	67	0.52 0,53	6	-	14	- 200	12	λ.	29
		20	61	0,63	4	••	14	- 200	LS .	A	29
		60	22		4	••	14	- 140	Zi Zi	A	28
**	decalin(13%-Tana)	ê 19	17	0.50 0.58		, ••	16	- 140	ıs	A	29
	•	30	36 27	0.58	•		14	- 140	LS	Α .	. 20
	•	40 60	37 22	0.58	4	••	14	- 140	کا	· A	20
		100	15.7	0,64	6	••	14	- 200	LS 24	Ā	29
	dighiorosthane	25	21.0	0.66	7	••	1	- 180	LS	A	21
	GIGHTOLOGUIANS	36	14.3	0.69	11		10	- 500	LS	٨	- 68
	diothyl malonate	9 34.2	71.8	0,50			39	- 400	LV	В	. 29
	distry) maionate	8 \$5.8	73,0	0.50			39	- 400	LV	В	29
	•	34	15.0	0.69			8	- 80	DV	A	28
	dioxane	34 25	17.6	0.68		••	1	- 150	os	A	•
	ethylbenzene	8 70	75	0.50		••	36	- 127	LV		<i>c</i> .
	ethylcyclobexane	9 70	75 76	0.50		7)	1		
	methylcycloherane	•							LV	P	•
		0 10.5	69.6	0,50	2		39	- 400		•	

IV-18

Polym	et	Solvent	Temp.	.K x 10 ³ .		No. c	f samples	Mol. Ren	WL	Method .	Remarks	: Ref
			(°C)	[m1/8)		Fr.	W.P.	М×	10-4			
							_					
Paly(styreno) atactic	(Cout 4.)	toluene (Cont' d.)	25	1.5	0.75	8		12	- 280	Ŀ	Α.	279
aracric		tomene (can u,)	25	8.48	0,748	7	••		- 52	٤.	A .	289
			25	10,5	0.73	Ġ	••	16	- 100	يا	A,R	294
			25	17 .	0.69	9		1	- 160	ıs	A	278
			25	7.54	0, 753	,	7	5	- 80	OS		295
	•		25	. 13.4	0.71	5	••	7	- 150	OS	A -	276
			25	44	0,65	••	9	0,5	- 4,5	OS		296
			25 (a 1	ucieries Atty		10		0.08	- 3.7	CR.	· L	297
			25	100	0.50	8	••	0.06	- 0.5	CR.	A,R,L	295
			30	9,2	0,72	9 -	••.	4	- 146	LS	A	299
			30	12.0	0.71	8		40	- 370	. LS	В .	280
			20	11.0	0, 725	7	·	. 8	- 85	os	A-8	300
			34	9.7	0, 733	10			- 80 -	DV.	٨	282
		trichloro-benzene	195	1.75	0. 67		-					697
	•	bensene methanol				•	. *					
		(74/26 vol)	B 34	89	0.50	10	•	8	- 80	DA	٨.,	877
		butanone/methanol								_		
•	•	(97.5/2.5 VOD	25	22.4	0.62	8	••.	12	- 280	LS .	٨	27,9
	· · · .	(95.0/5.0 vol)	23	26,3	0.60	. 8	••	12	- 280	15	A .	279
		(92. 5 /7.5 vol)	25	35.7	0.57	8		12	- 280	LS	, A .	279
		(89/11 vob	g 25	73	0.50	8	••	12	- 280	LS	A	279
		butanone/2-propanol										***
		(6/1 val)	9 23	13	0.50	9.	•	4	- 146 .	LS	A	.299 282
	••	(82,6/17,4 val)	8 3 4	71.8	0,50	10	••	8	- 80	DV	A	202
•	•	chloroform/methanol			0.86	8.		12	- 280	LS	A!	279,278
* * * * * * * * * * * * * * * * * * * *	:	(90/10 vol)	25	7.7 12	0.75 0.68	a. 8	•-	12	- 280	เร		279,278
•		(80/20 vol) (75/25 vol)	25 25	46	0.54	8		12	- 280	LS .		279, 278
		(74,7/24,3 vol)	6 25 V	73	0.50	8	••	12.	- 280	เร		279,278
		dioxane/methanol	9 40			٠						-,0,0
•		(%.1/34.9 vol)	g 34	72.6	0.60	10		8	- 80	DV	A	282
		toluene/methenol	V	•-		_				•		
		(99/10 vol)	25	10.4	0.715	8	••	12	- 280	LS .	A .	279
2.4		(80/20 VOD	25	. 25	0.612	8	••	12	- 280	LS	Α ,	279
		(76.9/23.1 vol)	25	92	0.50	12		0.07	- 3.5	DA	A, L	296,297
		(75.2/24.8 vol)	6 34	88 .	. 0.50	10	••	8	- 80	DV .	. A	282
atactic, ao	ionic	benzene	25	100	0,50	••	7	0.04	- 1	VOS,EB	A,L	301
			30	8.5	0.78		12	2.5	- 150	vos .	A	301
•	•		. 30	11,5	0.73	••	5	25	- 300	2,1	A	302
			30	9.50	0,74	••	6	31	- 500	r	A ·	649
		cyclobexane	. 8 34	74.5	0.50		1		1	LS	В	304
			8 34.5	85	0.50		12	0,04	- 150	TR.		207,203
•		•	8 34.5	98	0,50		9 .	31	- 970	LS	٨	649
.*.		•	8 34.6	91	0.50	••	4.	25	- 300	ī?	A	. 302
	•		B 35	86	0,50	. ••	7	2	- \$0	צו	٨	305
	,	cyclohexene	25	16.3	0,68		. 3	20	- 107	LS	A . A *	206 302
		decalin (68%-cls)	8 12.2	80 .	0,50	••	6	2	- 50	LS .c		649
		decalin(99%-trans)	0 20.4	81	0,50	••	8	31	- 760	is Is	A	302
	•	dichloroethane	30	8.38	0,74		8	25 40	- 200 - 160	13 21	A .	303
		dioctyl phthalate	B 22.0	80	0,50	` •-	4	3	- 180	SD SD	٨	307
		toluene	20	11.2	0.72 0.73		6 · 12	. 3.	- 104	8D .	A,R	308
		•	25 25	9,71 34,5	0.73		25	0.4	- 230	δD	л, к В	309
			30	8,81	0.75	••	6	25	- 300	เร	Ä .	302
		-	30.3	10.4	0.73		16	2.6	- 50	೦ಽ,ಟ	A	310
isotactic		benzence	30.3	9.5	0.77	6	••	4	- 75	os		311
			30	10,6	0.735	7	••	,	- 37	06	. A-B.R	312
		chloroform	30	25.0	0.754	3		9	32	O6	C-D	- 284
		o-dichloroben zene	25	17.9	0.137	5	••	2	- 100	LV	c .	313
		toluene	30	11.0	0.725	.7		3	- 37	06	A-B	312
												314

telerences page 1V-62

Polymet.	Solvent	Temp.	K x 10 ³	a	No. of	ramples	Mol. Ran	VI. ge ⊶	Method :	Remarks	Raí.
		[°C]	[m1/g]		Ft.	W.P.	M z	10			
											
	•										
ly(styrene) (Cont' d.)	had an one	25 (a c	secremen vi	th MO	. 5		30	- 200	LS	B-C	- 315
branched, random type	butanone cyclohexane		ioacres mi		9		8	- 300	کا	٨	316
	-,		occienzas Ai		9		8	- 300	LS	٨	316
	tolucie	00 (6 ·	0.94 (3 bce	nches)		•			•		204
star type, anionic	cyclohexane	9 34 8 -	:0.82 (4 bra	nches)							.304
•			:0.48 (9 bra								. 318
•	decalin		=0.90 (8 b=							•	304
	toluene		=0.84 (4 bra								204
*				(1,0)	3	••	18	- 46	LV		865
ly(styrenemifonic acid)	aqueous HCl (0,5214)	25	(0.344)	(1.0)	. 3		18	- 46	LV		365
	aqueous NaCl (0.52M)	25	(0, 312)		. 4		49	- 228	LS	В	366
, sodium salt	agreeous NaCl (4.17M)		20.4	0,60	-	••	39	- 234	LS	B.R	266
•	(0,5%)	25	18.6	0.64	6		39	- 234	LS	В	366
• .	(0,114)	25	17.8	0.68	6	••	39	- 224	ıs	. B	866
	(0,05M)	25	13.9	0.72	6	••		- 234	LS	B 1	366
	(0,02M)	26	10.1	0.78			39	- 234	بن افا	В.	366
	(0.01)(26	2,8	0,89			29 .		كا	8	366
	(0.005)	0 25	2,3	0,93	5.		49	- 234	در کا	ß.	366
	agreous KCI (3.1M)	25	20,4	0,50	4	••	49	- 234	13		
	Tamen can feed at			•							•
	•			1.9.0	THERS						
					:						
ly[(biphenyl=4-yD-ethy			23.4	0,619	S		. 7	- 110	LS	₿.	26
	benzene	80		0.59	6	••	. 1	- 110	LV	₿ .	26
	•	30	29.6	0.589		••	7	- 170	15	B	26
		75	27.7	0.559	. •		•		•		
ly(carbanilinoxyethylen	e). (Poly(viny) carbanila	((ed			•••		G	- 200	LS	Λ	33
	dioxane	20	13.7	0,68	11		•		_		
	dioxane/methanol				_			- 200	LS .	Α.	33
	(28/72 vol)	B 20	64.5	0.53	5	••	6	- 90	,	• •	26
oly(diphenylmethylene)	bensene		218	0.528	1 7		. 1		•	•	
oly(1 -methoxycarbonyl-			•			,		40		Α.	36
TALT -MEMBER SCHOOL S.	benzene	30	35.6	0.560	. 8	•	6	- 40			. 30
	chloroform	30	12,7	0.661	. 8	••	6	- 40	LS.	۸.	
•	ethylbensees	8 15	51,4	0.507	7 0,		6	. • 40	Ľ	A	
		25	30,5	0,58	11		0.7	- 45.	Ľ	A	. 30
oly(vinylcathazole)	benzenc	. 25	13.6	0_67	8		3	- 45	کا	, Α	3
•	chlorolotm	. 25	20.0	0.61	9	•• •	2	- 45	كا	A	3
	cyclohexanone		12.9	0.68	. 9	••	2	· 45	LS	٨	2
•	temachlorosthane	25	-	0.85	10		. 1	• 45	LS	Α	3
• •	ectrahydrolutan	25	14,4		-		. 4	- 107	OS	٨ ٠	3
	tomene	6 31	76.2	0,50	· '		•				
oly(5-viny1-2-methylpy	ridine)						18	- 88	کا	A	3
	butanone	25	13.9	0.65				- 100	· LS	Ā	3
	•	25	19	2,64			. 6	- 40	OS	 R-8	3
	dimethyllomamide	25	13.0	0.76		٠	•		os 0s	A-8	8
•	methanol	25	18.0	0,83		••	4	- 40			3
		25	18,6	. 0.70	9		7	- 80	LS 	Α .	
		25	8,0	0.76	9		12	- 88	Ľ	A	
		20	2,20	0,82	4		4	- 17	کا	B	2
oly(1-vinymaphthalene) péritene	15	1.03	0.88		••	4	- 17	. کا	B	2
		17	1.7	0.80		••	10	- 100	125	-	•
oly(2-vidyidapdinalene) benzeac			0.71			6	- 68	LS	8	2
		20	A.90	0.75	•		6	- 69	LS .	8	
		75	8.69	0.03	- °	•	•				
	decalin/toluene							- 100	LS		
	(13/10 √ 0	e 30.5	2	0,50		••	10		Ľ	B,C	٠.,
oly(2-vinylpyridine)	benzese	25	17.0	0,64	• 14		. 3	- 93			
)(vm)(pyrmme)	butanone butanone	25	97.2	0.41	7 14		3	- 93	كا	B, C	
•	dimethyllocmamide	25	14.7	0,67	7. 14	••	3	- 93	2.5	B,C	. :
	•	25	30.2	0.61		••		- 93	LS	B,C	:
	dioxane methanol	25	11.3	0,7			3	- 93	کیا	B,C	
								- 93	LS .	B.C	. :

g'=[n] of branched moise./[n] of linear molec. With same mol. wt.

IV-20

Polymer	Solvant		K x 10 ³		No.	ol samples	Mol.	.WL Be	Method	Remarks	Ref
		, [°C]	(mi/g)		ft,	W.P.	Mx	10			_
Delaid advisor desail desail											
Poly(2-viny)pyridine) (Cont' d.)	ethanol/water (92/8 wt)	25	12.2	0.73				- 99	เร		371
Poly(4-vinylpyridine)	eihanol	25	(1.51)	(0,52)	14	3	a 1	- 4	5D	8,C C	371
rosy(4°122)spystatio	enmo!	25	25.0	0,32)	8		10	- 185	ع عن	A-₽	372
	water	<u> </u>	22.0	0,587	8	•••	10	- 185	LS	A-B	273
	butanone/2-propanol	25	38.0	0,57	7		7	- 234	Ľ	В	374
•	ethanol/water (92/8 w		12,0	0.73	7	••	7	- 224	کا	В	374
Poly(viny)pyrrolidane)	chloreform	25	19.4	0,64	4	2	2	- 23	LS .		278
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	methmol	30	23	0.66	·	6	2	- 23	LS	B	878
	Water	20	64	0.58	3		1	- 9	SD	B .	379
		25	67.6	0,55	15	••	0,7	- 10	LS	B,R	378
		. 25	4.1	0.85	••	5	1	- 4	SD	C,D	311
•		90	14	0.70	9		1	- 20	SD	В	381
	•	30	39.3	0.59	6	·	8	- 110	os	A,R	583
•	acetone/water		•							_	
	-	6 ²⁵	75_0	0.50	••	3	1,2	- 108	LS	, B	384
oly(vinybulianic scid)	aqueous KBr (0,247M)		68.8	0,60	5		4	- 39	LS .	B. ,	259
		15	30,8	0.61	5	••	8	- 39	צו	В	250
	•	30	24.5	0.75	5		9	- 39	LS	В	259
		50	26.6	0.76	5	••	P.	- 39	LS	В	259
•	aquoqui KCl (0.349M)	8 3.0 25	68.2	0,60	5	•-	•	- 39	15	9	289
2.4	(0. 65 0M)		16.7 79.5	0.79	5 5	••	4	- 39 - 29	is Is	B B	259
	(1.001M)		80.3	0.50 0.50	5		4	- 89	حا کل .	3	259 259
	aqueous NaBr	8 44.5		0.50	•		7	. 95	. 10		200
• • • • • • • • • • • • • • • • • • • •		g -0.6	93.3	0,50	3.		4	- 39	LS .	. в	259
	(4)14-2-119	10	26.8	0.79	5		8	- 39	LS	В.	259
	1.0	20	25.1	0.76	5		· R	- 39	Ľ	В	259
		- 30	22.0	0.79	`5		8	- 39	15	В.	259
	(1,008M)	6 40,1	94.5	0,50	5		4	- 39	LS	В	259
	aqueous NaCl				•					• • • •	
	(1.00310)	6 32.4	36.1	0.50	5	•-	4	- 39	21	В	259
	(0,514)	20	21,5	0.65	••	6	0,3	- 3	8D	C .	200
oly(viny)trimethylellane)	cyclohexane	25	8.2	0.71	. 5		59	- 213	ĽS.	B	610
			. 1.	10 COPOLYM	Deres				24		
							•				
oly(acrylonitrile-co-butad	Hono). see also Poly(but	adiene -co	-acrylonitril	e) in group 1	.1	•			•		
18/62 wt, random	tolnene	25	251	0.60	7	, **	0.06	- 1,26	os	A	590
26/74 wt. random	toluene	25	260	0.50.	5	••	0, 15	- 0,40	06	۸ .	590
oly(acrylon lorlle-cn-glyci	dyl methacrylate)										
	dimethylformamide	30	175	0.65	٠,	3		7		•	591
oly(acrylonizile-co-meth		'r						•			
	dimethylformamide	20	17.9	0.79	6		2	- 21	LS	B	592
oly(scrylon(trile-co-styrer										•	
•	butanone	30	36	0.62	16	••	15	- 120	LS	, B	593
	tetrahydrofuran	25	21.5	0.68	4	•• .	10	- 18	LS .	B	504
62.6/37.4 mol, random						•				·	
	butanone	. 30	52	0,61	11		19	- 86	r S	B	595
ly(butadiene-co-mathacr	dimethylformamida	30	12	0.71	11		19	- 56	re '	В	585
ty(outaitme-co-metaico	toluças		437 [.]	0.50		••	0.00		~		60À
ly(butadiene-co-2-methy				0.50	\$	••	0.09	- 0,11	os ·	Α	590
-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	toluene	25	309	0.50	5	••	0.09	- 1.04	os	A	590
ly(butadiene-co-styrene),					3		0,00		~	^ .	350
	benaene	25	39.4	0.70	4		2	- 51	08	A	596
	dibutyl phthalate		672	0.40	6		2	• 51	OS	Å ·	598
			167	0.50	5		,	- 51	06	A .	596
ly(buty) (taconate-co-di	• • • • • • • • • • • • • • • • • • • •			-,00	•		•			•	
	acetone		575	0.32	6		9 -	- 70	ıs	3	597
	methanol		554	C.92	7	••	11	- 110	Ľ	3	697
					•				-		

JV-23

Polymer	Solvent	remp.	K x 10 ³	a b		f samp	les	Mol. Rang M. X	ge _			Method	Remarks	R±ſ.
		[90]	[mV _B]		Ft.	W.P.								
			MAIN-CH	AIN CARBOCYC	nic i	POLYM	ers							
			44	0.594	11			2		10		OS	B	262
y(acenaphthenylone)	benzent	25	30,04 2,82	0.74	4			4	•	10	0	1.5	A,B	263
•		26	20,0	0.54	G	_	-	E	-	12	5	LS	A,B	263 263
	ethylene chloride	25 25	31,5	Q. G1	7		•	e	•	14		LS	A,B	263
	dioxane	25	G. 92	0.66	5	-	•	6	•	14		LS 	A,B	263
•	mathylene chloride toluene	25	6,76	0.GG	17	•	•	а	•	17	15	LS	A,B	200
ě		3	, main-ch	AIN HETEROAT	OM 1	POLYM	ers							
				3,1 POLY(OXID										
••														
niviathylene axide). F	Poly[oxy(ethylethylene)] ce Poly(oxyethylene)												4.5	385
oly [oxy(test-buty]-eth)	ylenė)] benzene	25	39,7	0.686	1	9		8	•		520	1.5	A -B	200
oly(oxy-1,2-cyclobex)								2	_		50	Q 5	В	472
oly(oxy-1, 2-cyclonex)	toluene	35	3.5	0, B3	2:		••	Q. 1		. '	0.9	SE	В	380
oly(oxydecamethylene		35	195	0.53		า	-•	0,0		-	0,9	SE	В	386
-dil/(ox lencalitem) mue	chloroform	30	172	0.56		9		0, 0			-,-			
oly(oxy-2,6-dimethy	-1.4-phenylene)					8		3		-	17	1.5	В	47
, or 1, to 1	benzene	25	26.0	0.69		5		7		-	17	LS	В	47
	carbon tetrachloride	25	75,5	0,585		1		2		-	42	เร	В	47
	chlorobenzene	25	27.8	0.63 0.63		7		3		•	18	LS	В	47
		90	51,4	0.64		8		2			42	1.5	B	47
	chloroform	25	48,3	0.68		15		2			42	LS	В	41
	toluese	25	28.5	0.00		••								
Poly(dioxolane), see	Poly(oxymethyleneoxyethyle	ne)												
Poly(oxy-2, G-dipheny	1-1,4-phenylene)		13.9	0.68			10	4		٠	145	ıs	c	4'
•	chloroben zene	25	15.6	0,67		••	10	4		-	145	LS	c	4'
		90	21.4	0,635	5		10	4		-	145	LS	Ç .	4'
	toluene	25	32	0,67		5	•-	7		-	100	ľV	A,R	3
Poly(oxyethylene)	acetone	25	156	0.50		7		0	02	-	0,3	_	A,L	
•		25	48	0,68		12		0	, 01	•	1,9		A	3
	pen sen e	20	39.7	0,68		9	••	8	}	-	520	LS	A.R	3
		26	129	p.50		12		0	. 02	-	0.8		A, L	3
		25	69	0.61		9		0	0. 02	•	1.		A .	:
	carbon tetrachionide	20	62	0.64		5		7		•		LV	A	:
	_	25	20 6	0,50		6		(0,02	•	0,	15 EG	J.A	
	chloroform	26 20	200 [η] =0.5+0	A RA		11		1	0.00	G -	. 1	.1 EG	A	:
	cyclohexans	20	- 112 2020 C	-					_		1 00	r.		
-	diethylene glycol diethyl ether	50	140	0,5	1	Б			7	•				
	dimethyliom amids	25	[_{Ti}]=2.0+	0.73		10			0,1		- 3			
	djoxane	20	(m) =0.75	+0, 035M ^{0,71}		13	••		0.00			.1 EG .15 EG		i.
	dorme	2:	138		0	7			0.02	ć		-		_
•			0 { _{Ti}] =2.0+	0,72		12	••		0.0	06	- 1	.9 EG		
	methanol				57	,					,		,5D A	
	-	2		0.5		\$			7		- 100			
	4-methylpentan-2-	one 5	0 120				4		0.0	4	- 0	. 4 EC	; c	L
	toluene		5 14,						0,0	ens.	_ 1	.,1 EC	; А	
	vater	2	0 [n]=2.0	+0, 01€M		11			0.0).1 E		L
	 -		15 166	0.	50	5	••		2	-10	- 500		s,SD C	
		:	30 12,	_	78		6		3		- 70	· .	•	R
		;	35 6.		82	••	5		0.0	04		0.4 E	_	,L
		:	36 16.		82	••	4 5		8	-	- 70		v c	
			4 5 G.		.81							_		

VISCOSITY-MOLECULAR WEIGHT RELATIONSHIPS

Polymer	Solvent	Temp.	K x 10 ³	a P	10. of sau	mplet	Mol, W Range	't. -4	Method	Remarks	Ref.
		[ºC]	[m1/g]		Ft. W.	.P.	M x 10				
ly(oxyethylene) (Cont' d	 .)										
.,(02)*****	aqueous KoSO4						з -	700	LV	С	395
	(0.45M)	6 35	130	0.50		5 5	7 -	100	LV	A	387
		35	280	0.45	••	•	·				
	aqueous MgSO ₄		100	0.50		5	3 .	700	ľA	C	395
	(0.39M)	e 45	100 15.9	0.75	10		5 -	120	1.5	B-C	396
ly[oxy(ethylethylene)]	benzene	25 30	8.39	0,84	9		20 -	210	LS	В	391
		25	19.6	0,69	10		5 -	120	ıs	B-C	39
	butanoi	30	4,08	0.79	9	••	20 -	210	IS.	В	39
	hutanone hexane	25	14.3	0.73	10	••	5 4	120	រេ	B-C	39
	3-propanol	6 30	86.8	0.50	9	••	20		LS	В	39 39
	5-proparor	0 30	113	0.50	9	••	5		路	B-C C	39
oly(oxyhexamethylene)	ben zene	25	86,9	0.62	1	8	0,01		SE,CR SE,CR	c	39
aty(ux)nexa	dioxane	25	131	0,55	1	10	0,01		SE, CAR EG	В	38
oly(oxymethylane)	dimethylformamide	130	22.4	0,71	7		0,15		EG	В	38
ozy(=r-)===-/===-/	-	140	18.1	0.73	7		0,15	- 1.0	10		
	hexafluoroacetone-se	9-									
•	quihydrate (1/1.7										
	mol, with triethyl-				7		0.16	- 1.5	£G.	В	31
	amine 1% vol)	25	46,0	0.74 0,69		5	2	- 15	LS	c	4
		25	87	0,69		•	-				
	phenol/tetrachloroet		-4 1	0.80		18	0.8	- 10	EG	C'D	4
	(1/3 14)	90	27.5	0.93	,	••	• •	7	OS		4
	(Jov E/L)	90	5.22	0.53	•						
Poly(oxymethyleneoxyet)		25	200	0.50	4	14	9	- 100	15	D	4
	chlaraben zeue	25 60	41.3	0.724		3	7	- 13	LS	c	4
	p-chlorophenol		41.0	***							
	1H,1H,5H-octaftuo pentanoi-1	110	13,35	0, B10		3	7	- 13	ıs	С	•
	=		•								;
Polyl oxy(phenylethylene	benzéñé	30	92,2	0,758	- 10		1.4	- 81	LS	B,C B,C	
	toluene	25	67,9	0.766	10	**	1,4	- 81	LS A IS	۸.	
D. J. Carrennonthernel	acetone	25	75.5	0.56	5		0,1	• 0.		A	
Puly(oxypropylene)	benzene	20	11.1	0.79	5	••	0.07	- 0.	ısı se	A-B	
		25	11.2	0,77	3		3	- 70	٠ ،	Y-2	
•		25	14	0,8	1	_	۸.5	- 92	LV	С	
tsotactic		25	38,5	0.73	••	8	0,5 1	- 92	LS	۸	
		25	. 41.3	0,64	11		0,05	- 0,		A	
		25	41.5	0,65	5	10	3.4	- 307	1.5	A-B	
	пехале	46	19.7	0.67	6 G	70	0,05	•	33 SE	A	
	methanol	20	40. F	0,64 0.65	10		1	- 1	LS		
		25	7G.9 55.0	0.62	.5		0.05	. 0	,33 SE	٨	
	tetrahydrofuran	20	20.8	0,72	5.	••	0.07	- 0	, 33 SE	A	
	toluene	20 25	12,9	0.75	3		3	- 70	1.5	A -B	
•	tolnene/2, 2, 4-tri				•				•		
	pentane (5/7 vol)	9 39.	5 107.5	0,50	7		1	- 7		A	
		30	131	0,60		12	2.6	- 113	_	· · A	
Poly(mytetramethylen	ethyl scetate	30	42,2	0,85		12	2,6	- 113		A -B	
	toluenc	28	25.1	0.78	טן		3	- 12	us	n -¤	
	ethyl acetate/her	ans						***	LS	A	
	(22,7/77,3 WG)	⊕ 31	.8 20Ĝ	0.49		11	2,6	- 113 - 20		Ä	
Poly(oxytrimethylene)	acetone	30		0.59		7	2,8 2.8			Α.	
	benzent	30		0,78		15 11	2.0 2.8			A	
	carbon tetrachlor	ide 30	26.7	0,75		11	P. 11				

rv •25

DOI 4/ESTERS)	POLY(CARBON ATES)
POLY (ESTERN).	LODY/OLIT

					_			Mol.	WI		Metb	od	Remarks	Rcf.
Polymer	Solvent	Temp.	K x 10 ³			(sam		Mol. Rang M x						
		[%]	(m1/g1		Ft.	W.P	·	- A		_				
		!	3.2 POLY(ES	TERS), POLY	(CARBO	ONATE	(5)							
•		4 4	shanylene(s	nneopylidune:	-1 , 4-pì	enyler	ne]							
sphenol A poly(carbonal	es), see Poly(arycathony	xvtere Di	rhaloyl)											
olik(axisqiboxloxiqecam olik(athistere tatebythata:	te), sec Poly(oxyethylene ethylene)	, .		4			7	0.8	_	3	L V		C	415
01A(oxatarboaroxamem	chloroben zene	25	11.7	0.84 0.86			12	1	-	3	ſΛ		c	416
	diethyl succinate	79	5.B							_			С	475
०१५६ व्यरप्रदक्षकिया प्रसिधित व्य	[2, 2, 2,] octan -2, 5-dion)	20 20	xyllexamem)			•	4	1.4	•	3.9	മ		C	4.5
	Cpratolom	20						0.1		0.5	OS		B	416
oly(axybutynedioylaxyb	benzane	20	151	0.55		,		0.1	-	0.5	OS	i	В	416
	chlaro(orm	20	91	0.61		}		•••						486
Poly[oxycarbonyloxy-1,	-phenylenelsopropylidene	-1,4-pbc	nylene]	0.50		8	••	4	-	31	LS		В	475 477
	butyl benzyl cues	9 170 20	210 277	0.60				1.5	-	6	ی کا		A	478
	chloroform	20 25	12.0	0.82		8		1	•	7	12		A	478
	ethylene chloride	25	20.4	0.76		8) 1	-	27	si		В	479
•	methylene chloride	25	11.1	0.82		6		1	-	76	L		B,R	476
		25	11.9	B,80		12 8		1	-	7	Į.		A	478
		25	38.9	0.70 0.82		8		1	-	7	ι		A	478 478
	· tetrachlorocthane	25	13.4 38.9	0.70		8		1	•	7		5	A C,R	476 479
	tetrahydrofuran	25 25	39.9	0.70			6	1	-	27	S	D	C,K	4.3
	l_b/ Engage	20	V. 1. 0	•					_	75	1	LS	В	476
	cyclohexane/dioxane (36.1/63.9 wf)	25	230	0,5	0	4		30	-	10			-	
Poly(oxycarbony)penta:					•	۵		1.	4 -	15	:	sv	В	447
sork(oxicsmon) theirm	benzene	30	9,94	o, 8 0, 7		9		1.			;	sv	В	447
	dimethylformamide	30	19,1	0,7	•	-							- 5	660
Poly(oxycarbonylprop)	lent)	30	7.7	0.8	32		5	2	•	. 78	•	SD LS	C'D	863
-	chloroform		25.1	0.7			6	2		- 101	L	w	0,5	
	2,2,2-trifluoroethan						_	2	1		4.6	OS	С	48
Poly(oxy-1,4-cyclohe	zyleneoxysepamyu	20	27.8	0.1		••	5 9				3.7	os	С	48
, ci t	chlamiom	20	18.3	0.1	B6		P	ĺ						40
, trans Poly(oxyethyleneoxyte				۸	83		7	0	. A	-	2.0	EG	c	49
101/(02/02/03/	o-chlorophesol	25			81	6		1	. 5		2.8	EG	B C	45
		26 26	_		77		34		. 1		2.9	EG 5D	Ä	41
		20		0.	. 69	7		2	.,2	• 1	5 2.5	05	c.	41
		25			, 73		5		5		3.8	EG	В	4
		5	26	_	.77	G 	-• 5		0.04	•	1,2	EG	A,L	
•	nı - cresól	2		•	,95 .50	7			1,5	•	3.8	EG	В	4
	dichloroscetic sci	4			. 87		6		D, 0 4	-	0.1	EG	A,l B	. ,
	tetrachloroethane		0 13.8 5 1 4 0		, 64	7			1,5	•	3.8	EG LS	Č	
	trifiuoroacetic aci	. 2	0 43,3		88,0		9		2,5	-	12 3.8	EG	В	
			5 190	(0.86	7			1.5 1.5		3.8	EG	В	•
•			55 105	(0.69	6			*.0					
•	dichlaroethene/pl	cool			n P							EG		
	(6/4 voD		9.9	3	0,8									
	phenol/tetrachlor	ethane	25 140		0.64	6			1.5	•	3,8	ΣG	B B	
	(40/60 ₩D		25 140 35 125		0.68	E			1,5	•	3.8	EG LS	ç	
	40 /E T		30 22.	9	0.73				2,5	•	12 3	EG	_	
	(3/5 vol) (50/80 vol)		20 75.		0.685				0.3	•	3	£G	_	
	(30) 00 100		25 21		0.82	•	. 9		V.5		-			
•			12		0.86							Ľ	;	
	phenol/tetrachlo	rophenol	25 46	, B	0,88							_		
	phenol/trichloro	phenal	29.8 2B	n	0,775		4)	0.3		0,4 4	E	2	
	COV TVOD		47.8 45					3	1.7			L)	. `	

	Solvent	тетр.	K * 10 ³	2 1	No, of s	:amples	Mol, Wt. Range -4		Method	Remarks	Ref
		[oc]	[mVg]		Ft. V	V.P.	M x 10				
ly(oxyfum aroy loxybexa	methyleise)										
-,\\-,\\ - \\ - \\ - \\	chloroform	20	27.1	0.80	5		2	4.3	O5	В	41
lv[oxy(hexshydro-3, 6-	endomethy)enephthaloyi)ox	yhexame	thylene]								
cis	benzene	20	4.64	0.86	13		2.3 -	7.5	05	В	49
	chlaroform	20	9.33	0.83	13		2.3 -	7.5	O5	В	49
trans	benzene	20	17.4	0.75	10	••	8.5 -	11	C/25	В	45
	chloroform	20	17.9	0.77	11	••	3.3 - 7	15	OS	В	48
ly[oxy(hexahydroterspi	athaloyDoxyoctamethylanc	1					_				
cis	chloroform	20	22.9	0.79	6		9.3	6.5	OS .	В	48
trans	chloroform	20	18.9	0.84	6		2.4 -	4.4	06	В	48
ly(oxybex amethyleneo	xy-2,9-dibulylseba∞yl)									_	
	benzene	20	37,4	0.74	3		0.9 -	2.4	20	₿	41
ly(oxyhex=methyleneo	xysebacoyl)										
	benzene	20	62,7	0.69	9		0.6 •	1.8	05	В	4
	chloroform	20	72,5	0,70	9	••	2 -	10	OS	В	4
iy(oxym aleoyloxyhexa	metbylene)									_	
•	ben zene	20	75.3	0,60	7		1,3 -	6,6	20	8	4
	chlotoform	20	36.2	0.73	7		1,3 -	6,6	os	В	4
	tetrahydrolwan	20	43.7	0.68	7		1.3 -	6,6	OS	В	4
ly(oxyschacoyloxyhex	decamethylene)						_				
	chloroform	20	74.7	0.70	4	•-	2 -	10	os	B	4
ly(oxysuccinyloxyhexa	methylene)							_		_	
-	benzene	20	43.3	0.70	22		1.5 -	5	os	В	4
	chloroform	20	24.4	0.79	18		1,5 -	ā	os	B -	4
	tetrahydro iuran	20	44.3	0.69	13		1.5 -	5	80	В	4
ly oxyletra(ethyleneo:	cy)carbonyl(1-methylethyle	ne)thio(S		ne)carbonyl]							
	chlaroform	>	34.7	0,714	••	1	< 1.5		EG	1	•
oly(exyundecanoyl)	chloroform	20	21,4	0,60	7	••	3 -	49	06	В	•
		25	36,3	0.82	••	6	0.5 -	1.3	EG	С	•
			3,	3 POLY(AMII)ES)						
aturi chumutaman at a smac	yi],(poly(butyi isocyanate	A 1									
		20	1.10	1.11		7	1,8 -	21	SD	A,R	
orationed minmodelinor	hon gone							16			
ory (Cour) mirmo, our oc	benzene					2	6,6 -	10	a2	D	
ory to busy minus, our over	tetrachloromethane	20				2 7	6,6 - 1.8 -	27	2D U2	D A	•
	teirachloromethane teirahydrofuran	20 20	0.457	1.18							•
	tetrachloromethane tetrahydrofuran dexamethylene), (Nylon 8	20 20 6)	0.457								,
	tatrachloromethane tetrahydrofuran hexamethylone), (Nylon 6 o-chlorophenol	20 20 6) 25	0.457	1.18		7	1.8 -	27	8D	A	
	tetrachloromethane tetrahydrofuran dexamethylene), (Nylon 8	20 20 6) 35 25	0.457 168 240	1.18 0,62 0,61 0.792		7 2 2	1.4 -	2] 5 5	ED LS.EG LS.EG	C C	•
	tatrachloromethane tetrahydrofuran hexamethylone), (Nylon 6 o-chlorophenol	20 20 6) 35 25	0.457	1.18 0,62 0,61 0.792		7 2	1.8 -	27 5	8D LS,EG	A C	•
	tetrachloromethane tetrabydrofuran hexamethylane), (Nylon 6 o-chlorophenol m-cresol	20 20 6) 25 25 25 (1	0.457 168 240 a)=0.5+0.0353	0,62 0,61 0,792		7 2 2	1.4 -	2] 5 5	ED LS.EG LS.EG	C C	
	tetrachloromethane tetrahydrofuran dexamethylane), (Nylon 6 o-chlorophenol m-cresol dichloroacetic acid	20 20 6) 25 25 25 (1	0.457 168 240	0,62 0,61 0,792		2 2	1.4 - 1.4 - 0.015 -	27 5 5 5	ed Ls.eg Ls.eg Ls.eg	A C C	
	tetrachloromethane tetrahydrofuran hexamethylane), (Nylan 8 o-chlorophenol m-cresol dichloroscetic acid 2,2,3,3-tetrafluoropro	20 20 6) 25 25 25 (1	0.457 168 240 a)=0.5+0.0353	0,62 0,61 0,792		2 2	1.4 - 1.4 - 0.015 -	27 5 5 5	ed Ls.eg Ls.eg Ls.eg	A C C	
	tetrachloromethane tetrahydrofurah hexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropro panol, Cl. COONa	20 20 6) 35 25 25 (1	0.457 168 240 a) =0.5+0.0353 a) =0.5+0.3521	0,62 0,61 0,792		2 2	1.4 - 1.4 - 0.015 -	27 5 5 5	ed Ls.eg Ls.eg Ls.eg	A C C	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, CF COONa (0,1M)	20 20 6) 25 25 25 (1	0.457 168 240 a)=0.5+0.0353	0,62 0,61 0.792 M. 551	13	7 2 2 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 -	27 5 5 5 \$	5D L3.EG L3.EG L3.EG	A C C B	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, Cf COONa (0,1M) aqueous HCOOH	20 20 6) 35 25 25 (1	0.457 168 240 a) =0.5+0.0353 a) =0.5+0.3521	0,62 0,61 0.792 M. 551	13	7 2 2 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 -	27 5 5 5 \$	5D L3.EG L3.EG L3.EG	A C C B B C	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, CF COONa (0,1M)	20 20 6) 35 25 25 (1 25 (1	0.457 168 240 a) =0.5+0.0352 a) =0.5+0.3521	1.18 0,62 0,61 0.792 1M 0.551	13	7 2 2 2 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 -	27 5 5 5 5	ES.EG LS.EG LS.EG LS.EG LS.EG	A C C B B	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, Cf COONa (0,1M) aqueous HCOOH	20 20 6) 35 25 25 [1 25 l1 - 25	0.457 168 240 a) =0.5+0.0352 114 S5,8 110	1.18 0,62 0,61 0.792 am 0.551 0.66 0.786 0.786 0.72	13 12	2 2 11 20	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 1.4 - 0.5 - 0.5 -	27 5 5 5 5 5 2.5	ES EG	A C C B B C C C	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2, 2, 3, 3-4etrafluoropro panol, Cf COONa (0, 1M) aqueous HCOOH (90% vol)	20 20 6) 35 25 25 [1 25 l1 - 25	0.457 168 240 a) =0.5+0.0352 114 S5.5	1.18 0,62 0,61 0.792 am 0.551 0.66 0.786 0.786 0.72	13 13	7 2 2 2 2	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 1.4 -	27 5 5 5 3 5 6.5	IS.EG LS.EG LS.EG LS.EG LS.EG LS.EG	A C C B B C	
	tetrachloromethane tetrahydrofurah o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, Cf COONa (0,1M) aqueous HCOOH (90% vol)	20 20 6) 35 25 25 [1 25 [1 - 25 25 25 26 [4	0.457 168 240 a) =0.5+0.0352 114 SG.S 110 n) =2.5+0.013	0,62 0,61 0,792 M 0.551 0.66 0.786 0.72	13 12 13	2 2 2 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.05 - 0.05 - 0.5 - 0.5 -	21 6 5 5 3 6.5 2.5	ES.EG LS.EG	A C C B B C C C	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2, 2, 3, 3-4etrafluoropro panol, Cf COONa (0, 1M) aqueous HCOOH (90% vol)	20 20 6) 35 25 25 11 - 25 25 25 25 25 25 25 25 25 25 25 25 25	0.457 168 240 a) =0.5+0.0352 114 S5.5 110 n) =2.5+0.013	0,62 0,61 0.792 M. 0.551 0.66 0.786 0.72 2M	13 12 13 12	2 2 2 11 20 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.5 - 0.015 - 1 -	21 6 5 5 3 6.5 2.5 5	ES EG LS EG LS EG LS EG LS EG LS EG LS EG EG EG EG EG	A C C B B C C C B C.R	
	tetrachloromethane tetrahydrofurah o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, Cf COONa (0,1M) aqueous HCOOH (90% vol)	20 20 6) 35 25 25 [1 25 [1 - 25 25 25 26 [4	0.457 168 240 a) =0.5+0.0352 114 SG.S 110 n) =2.5+0.013	0,62 0,61 0.792 M. 0.551 0.66 0.786 0.72 7M	13 12 13	2 2 2 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.05 - 0.05 - 0.5 - 0.5 -	21 6 5 5 3 6.5 2.5	ES.EG LS.EG	A C C B B C C C	
	tetrachloromethane tetrahydrofurah o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropto panol, Cf COONa (0,1M) aqueous HCOOH (90% vol)	20 20 20 6) 35 25 25 11 - 25 25 25 26 [4] 25 25 25 25 25 25 25 25 25 25 25 25	0.457 168 240 a) =0.5+0.0352 114 S5.8 110 n) =2.5+0.0133 32.8 87.7	0,62 0,61 0.792 M 0.551 0.66 0.786 0.72 2M	13 12 13 12	2 2 2 11 20 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.5 - 0.015 - 1 -	21 6 5 5 3 6.5 2.5 5	ES EG LS EG LS EG LS EG LS EG LS EG LS EG EG EG EG EG	A C C B B C C C B C.R	
	tetrachloromethane tetrahydrofurah diexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2, 2, 3, 3-setrefluoropro panol, CF COONa (0, 1M) aqueous HCOOH (90% vol) aqueous HCOOH (90% vol), HCOONa (0, 1M)	20 20 20 6) 35 25 25 11 - 25 25 25 26 [4] 25 25 25 25 25 25 25 25 25 25 25 25	0.457 168 240 a) =0.5+0.0352 114 S5.5 110 n) =2.5+0.013	0,62 0,61 0.792 M 0.551 0.66 0.786 0.72 2M	13 12 13	2 2 2 2 11 20 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 1.4 - 0.5 - 0.015 - 1.4 - 1.4 -	2] 5 5 5 4 5 6.5 5 5 5 5	IS EG	A CC B B C C C B C.C	
	tetrachloromethane tetrahydrofuran o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropro panol, Cf COONa (0,1M) aqueous HCOOH (90% vol) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M)	20 20 6) 35 25 25 (1) - 25 (1) - 25 26 (2) 26 (2) 27 (2)	0.457 168 240 n] =0.5+0.0352 114 S5.8 110 n] =2.5+0.013 32.8 87.7 n] =1,0+0,051	0,62 0,61 0,792 M0.551 0.66 0.786 0.72 2M 0.65 6M	13 12 13	2 2 2 2 11 20 	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 1.4 - 0.5 - 0.015 - 1.4 - 1.4 -	2] 5 5 5 4 5 6.5 5 5 5 5	IS EG	A CC B B C C C B C.C	
	tetrachloromethane tetrahydrofurah dexamethylane), (Nylon 8 o-chlorophenol m-cresol dichloroacetic acid 2, 2, 3, 3-setrefluoropro panol, CF COONa (0, 1M) aqueous HCOOH (90% vol) aqueous HCOOH (90% vol), HCOONa (0, 1M)	20 20 6) 35 25 25 [1] - 25 25 25 26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	0.457 168 240 a) =0.5+0.0352 114 35.8 110 a) =2.5+0.013 32.8 87.7 a) =1.0+0.051	0,62 0,61 0.792 M0.551 0.66 0.786 0.72 2M 0.65 6M 0.65	13 13 13	2 2 2 2 11 20 19 2	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.05 - 0.1.4 - 1.4 - 0.6 - 1.4 - 0.015 -	27 5 5 5 5 5 6.5 2.5 5 5	ES EG LS EG	A C C B B C C C B C.R C B.R	
	tetrachloromethane tetrahydrofuran hexamethylane), (Nylan 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropro panol, Cf COONa (0,1M) aqueous HCOOH (90% vol) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M)	20 20 6) 35 25 25 (1) - 25 (1) - 25 26 (2) 26 (2) 27 (2)	0.457 168 240 n] =0.5+0.0352 114 S5.8 110 n] =2.5+0.013 32.8 87.7 n] =1,0+0,051	0.62 0,61 0.792 M 0.551 0.66 0.786 0.72 2M 0.873 0.74 0.65 6M	13 13 13	2 2 2 11 20 19 2 2	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.015 - 1.4 - 0.015 - 1.4 - 1.4 -	27 5 5 5 5 6.5 2.5 5 5 5	ES EG LS EG	A C C B B C C B R C C B R C C C B C C C C	
	tetrachloromethane tetrahydrofuran hexamethylane), (Nylan 8 o-chlorophenol m-cresol dichloroscetic acid 2,2,3,3-tetrafluoropro panol, Cf COONa (0,1M) aqueous HCOOH (90% vol) aqueous HCOOH (90% vol), HCOONa (0,1M) aqueous HCOOH (90% vol), KC1 (2,3M) aqueous H ₂ SO ₄	20 20 6) 35 25 25 [1 25 [1] - 25 26 [2] 25 25 26 [3] 27 28 28 28 28 28 28 28 28 28 28 28 28 28	0.457 168 240 n] =0.5+0.0352 114 S5.3 110 n] =2.5+0.013 32.8 87.7 n] =1,0+0.051 227 253	0.62 0.61 0.792 M 0.551 0.66 0.785 0.72 2M 0.873 0.74 0.65 6M	13 13 13 13	2 2 2 11 20 19 2 2	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 0.015 - 1.4 - 0.015 - 1.4 - 1.4 -	27 5 5 5 5 6.5 2.5 5 5 5	ES EG LS EG	A C C B B C C B R C C B R C C C B C C C C	
	tetrachloromethane tetrahydrofuran hexamethylane), (Nylan 8 o-chlorophenol m-cresol dichloroacetic acid 2,2,3,3-tetrafluoropro panol, Cf COONa (0,1M) aqueous HCOOH (90% vol) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M) aqueous HCOONa (0,1M)	20 20 6) 35 25 25 [1 25 [1] - 25 26 [2] 25 25 26 [3] 27 28 28 28 28 28 28 28 28 28 28 28 28 28	0.457 168 240 a) =0.5+0.0352 114 35.8 110 a) =2.5+0.013 32.8 87.7 a) =1.0+0.051	0.62 0.61 0.792 M 0.551 0.66 0.785 0.72 2M 0.873 0.74 0.65 6M	13 13 13	2 2 2 2 11 20 19 2	1.8 - 1.4 - 1.4 - 0.015 - 0.015 - 1.4 - 0.015 - 1.4 - 0.015 - 1.4 - 0.015 -	27 5 5 5 5 6.5 2.5 5 5 5 5	ED	A CCBBCCBRCBRCBRCBRCBRCBRCBRCBRCBRCBRCBRCB	•

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demarkable statement

								Mol. V	ωŧ		Metho	od Re	warks	Ref.
Polymet	Solvent	Temp.	K = 10 ³	å	No, o	(sampl	\$	Range M x 1						
·		[%]	[ml/g]		Fr.	W.P.		M¥I		_				
	B 03-1 6	10)	_							2.4	SD	В	ı	454
Poly(iminobexamethylenci	m-clesor	25	32.5	0.96	•-	5		0,8	•			8	,	448
Poly[1mino(1-exchexame	thylene)], (Nylon 6)		320	0,62	6			0. 05	-	0,5	EG	E		450
rus/Lun	th-creso:	25	63,3	0,74	6	-	•	1.5		10	នេ	E		450
	trifluoroethanol	-20	53.6	0.75	5		•	1.8		10	LS		R	450
•		25	58.2	0.78	5	-	-	1.3	-	10	រេ		B	460
.*		50	25.6	0.82	6	-	-	0,7	-	12	រេះ		8	450
1	aqueous HCOOH (85%)	-10 0	24.8	0.82	б	-	-	0.7	-	12	に に		В	450
,			23.4	0.82	6	-	-	0,7	-	12	EG		_	451
		10	75	0.70				Q. 45	•	1.6	LS		s,R	450
		20	22.6	0.82	11		-	0.7	-	12	د. 1.5		В	450
•		25	229	0,50	5	, ,		0.7	•	12			•	452
•	aqueous HOOOH (65%)	25	69.2	0,69				0,3	٠	1.8				449
	aquends H ₂ SO ₄ (40%)	25		0.22	-	-	4	0.02		0,0			A .	449
ring aligomer	m-cresol	25	2100	0.27	-	-	3	0,03	-	0.0	96 VC	æ	A	
rmP	ethylene chlorohydrin	25	870	V.#1							_	_		453
monochain, polymeri	ized			0,76			7	0.2	-	1.4	4 EC	•	В	.00
with stearic acid	conc. H ₂ SO ₄	25	63	0,.0										453
dichain, polymerizes				0,79			14	0.2	-	2.	3 E(3	B	
with schacic sold	conc. H ₂ SO ₄	25	42	0,	•								_	453
tetrachain, polymen	ized			0.74			11	0,2	-	1.	9 E	G	В	150
with a tetrabasic ac	1d conc. H ₂ 5O ₄	25	55	0,	•								_	453
octachain, polymeri	ized			0.8	6		5	0,4	_	2.	.6 E	G	В	100
with a octabasic ac	id coac. H ₀ 50 ₄	25	13.5		v								_	· 503
n-wi-insterentthsia	rlimino-1, 4∙pĥenÿieræflu¢	oren -9-y	lidens-1,4	-phenyscae/		7		1,5		7	, g	.5	В	,,,,,
Poly(mmontehamer-)	dimethyliomamide	25	310	0.6	30	•						LS	В	503
Poly(sminoterephthalo	of methyllomanide plant of dimethyllomanide	25	277	0.5	59	8		1.4	•		.9			
	•													
•				A A DOLVIAN	MNO A	CIDS)								
•	,			3.4 POLY(AM		CIDS)								
	Palviminocas	bonyl-i	-benzyloxy	carbony lethy iide	ené)	CIDS)	_	_						
	artate), see Poly(Iminocar			carponylatopyl carponylethylide	ené)	CIDS)	•							
				carponylatopyl carponylethylide	ent) ident)		_		15		1.8	EG	B.L	45
Poly(γ-benzyl=L+glut Poly((benzylimino)≎	amate). see Foly(manoconstitution), (Poly(N-	-benzyl-	-Б-212nine)) -5 120	carbony lethy lid ycarbony lethy lid 0.	ene) idene) .525	CIDS)	G		, 15	-	1.8	EG	B,L	
Poly(γ-benzyl=L+glut Poly((benzylimino)≎	amate). see Foly(manoconstitution), (Poly(N-	-benzyl-	-Б-212nine)) -5 120	carbony lethy lid ycarbony lethy lid 0.	ene) idene) .525	••	G	0,				eg Ls	p.L B	4 5
Poly(γ-benzyl=L+glut Poly((benzylimino)≎	amate), see Polyfindadous arbonylethylene), (Polyfindadous dichloroscetic acid L-benzyloxycarbonylethyli	-benzyl- 2 dene), (-β-#1anine)) 5 120 Poly(β-benz	carbony lethy lid ycarbony lethy lid 0.	ene) idene) .525	 5	G 	0,	. 8	. 2	34			
Poly(y-benzyl-L-glut Poly((benzylimino) & Poly(iminocarbonyl-l	amate). see Foly(manoconstitution), (Poly(N-	-benzyl- 2 dene), (-β-elanine)) 5 120 Poly(β-benz	carbonylethylid ycarbonyletopyl 0. cyl-L-aspartate) 1	ene) idene) .525	••	G	0,		. 2		LS	В	4(4)
Poly(γ-benzyl=L+glut Poly((benzylimino)≎	amate), see Full (manate), see Full (manate), see Full (manate), submy(ethy) ethologous (part) ethy) ethologous (manate), see Full (manate), submy see Full (manate),	-benzyl- l 2 dene), (1	-β-#1anine)) 5 120 Poly(β-benz	carbonylethylid ycarbonyletopyl 0. cyl-L-aspartate) 1	ene) idene) .525) ,15	 5	G 	0, 0	. 8 , 8	- 2	34 24	ಚ ಚ	В	4(
Poly(y-benzyl-L-glut Poly((benzylimino) & Poly(iminocarbonyl-l	amain), see Forgamina submylethylene), (Poly(N- dichloroscetic scid L-benzyloxycathonylethyli m-cresol bexamethylphospha	-benzyl- l 2 dené), (1	-β-stanine)) 5 120 Poly(β-bens 5	carbonylethylido ycarbonyletopyli 0. cyl-L-aspartate) 1	ene) idene) .525) ,15	 5	G 	0,	. 8 , 8	- 2	34	LS	B B	4(4)
Poly(y-benzyl-L-glut Poly((benzylimino) & Poly(iminocarbonyl-l	amaie), see Foly, indicases submylethylend, (Poly(N-dichloroscetic self-thenzyloxycarbonylethylim-cresol bexamethylphospha amide	-benzyl- 2 dene), (1 7	-β-stanine)) 5 120 Poly(β-benz 5	carbonylethylido ycarbonyletopyli 0. cyl-L-aspartate) 1	ene) idene) .525) ,15	5 5	6 	0, 0 0	. 8 , 6	- 3	24 24 24	ಚ ಚ	B B	4) 4)
Poly(y-benzyl-L-glut Poly((benzylimino) & Poly(iminocarbonyl-l	amain), see Poly(Manasabonylethylene), (Poly(Manasabonylethylene), (Poly(Manasabonylethylene), (Poly(Manasabonylethylene), (Poly(Manasabonylethylene)), (Poly(Manasabonylethylene)), (Poly(Manasabonylethylene), (Poly(Manasabonylethylene)), (Poly(Mana	-benzyl- 2 dené), (1 7 7	-β-#lanine)) 5 120 Poly(β-benz 5 25	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0	ene) idene) .525) ,15 .74	5 5	G 	0, 0 0	. 8 , 8	- 3	34 24	រេះ រេះ	B B	41
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Poly(Manasabonylethylene), (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chloroforn/dichlolo acetic acid (98/2	-benzyl- 2 dené), (1 7 7 7 7 7 7	- β-stanine)) 5 120 Poly(β-benz 5 25	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0	ene) idene) .525) ,15 .74	5 5	6	0,	. 8	- 3	34 24 24 24	រេះ រេះ	B B	41
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Foly(Manashamylethylene), (Poly(Manashamylethylene), (Poly(Manashamylethylene)), (Poly(Manashamylethyl	dené), (dené), (1 or- vol) ylidene).	- β- stanine)) 5 120 Poly(β-benz 5 70 25 (Foly(γ-b)	carbonylethylido ycarbonyletopyk 0 0. nyl-L-aspartate) 1 0 0 0. 1 1	ene) idene) .525) ,15 .74	5 5	G	0.000	. 8	- 3	34 24 24 24 24	1.5 1.5 1.5 1.5	8 8 8	4(4)
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Folyman subonylethylene), (Poly(N- dichloroscetic acid L-benzyloxycathonylethyli m-cresol bexamethylphosphe amide chloroismi/dichlor acetic acid (98/2 -L-benzyloxycathonylpropy dichloroscetic acid	-benzyl- 2 dené), (1 7 7 7 7 7 7 7 7 7 7 7 7		carbony lethy lide ycarbony lethy lethy lide ycarbony lethy leth	ene) idene) .525)) .15 .74).80	5 5 4	6	0.000	. 8	- 3	34 24 24 24	is is is	B B C	41
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Folyman submylethylene), (PolyN- dichloroscetic acid L-benzyloxycatbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acid (38/2 -L-benzyloxycatbonylgropy dichloroscetic aci dimethylformamic	benzyl- 2 dene), (1 7 or- vol) ylidene), (id	-β-stanine)) 5 120 Poly(β-benz 5 70 25 (Poly(γ-b 25 25 25	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0 0 1 1 cnzyl-L-g lutaro 2.78	ene) idene) .525) .15 .74).80 1.30 oate)) 0.87	5 5 4 5	G	0.000	. 8	- 3	34 24 24 24 24	1.5 1.5 1.5 1.5	B B C	41 41 4
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Forgamens subonylethylene), (Poly(N- dichloroscetic acid L-benzyloxycatbonylethyli m-cresol bexamethylphosphe amide chloroimni/dichlor acetic acid (38/2 al-benzyloxycatbonylgropy dichloroscetic aci dimethylfomamid dichloroscetic aci	benzyl- 2 dene), (1 7 or- vol) ylidene), (id		carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0 0 1 1 cnzyl-L-g lutaro 2.78	ene) idene) .525) .15 .74).80 1.30 oate)) 0.87	5 5 4 5	6 5	0.000	. 8 . 8 8 8 	- 3	24 24 24 24 34 34	LS LS LS LS	B B C	41
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Forthaman submylethylene), (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acid (98/2 -L-benzyloxycarbonylgropy dichloroacetic aci dimethylfomamid dichloroacetic aci beptane	benzyl- 2 dene), (1 7 or- vol) ylidene), (id	-β-slanine)) 5 120 Poly(β-benz .57025 (Poly(γ-b .2525 (Poly(γ-b .2525 (Poly(γ-b .2525 (Poly(γ-b .2525 (Poly(γ-b .2525333 -	carbony lethy lide ycarbony lethy lide ycarbon	ene) idene) .525) .15 .74).80 1.30 oate)) 0.87	5 5 4 5	G	0, 0 0 2 0	.8 .8 .8 8	- 3	24 24 24 34 34	LS LS LS LS LS	В В В	41
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Folyman submylethylene), (PolyM- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acetic acid (98/2 -L-benzyloxycarbonylpropy dichloroacetic acid dimethylfomamic dichloroacetic acid beptane (55/45 vol)	benzyl- 2 dene), (1 7 or- vol) ylidene), (id		carbony lethy lide yearbony lethy lide yearbony lethy lide o nyl-L-aspartate) o interpolation 2.78	ene) idene) .525) .15 .74).80 L.30 nate)) 0.87	5 5 4 5	6 5	0, 0 0 2 0	. 8 . 8 8 8 	- 3	24 24 24 24 34 34	LS LS LS LS	В В В СС	41
Poly((-benzy):Inim) of Poly((benzy):Imim) of Poly(Iminocarbonyi-i	amain), see Forthaman submylethylene), (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acid (98/2 -L-benzyloxycarbonylgropy dichloroacetic aci dimethylfomamid dichloroacetic aci beptane	benzyl- 2 dene), (1 7 or- vol) ylidene), (id		carbonylethylide yearbonyletopyli 0 0. nyl-L-aspartate) 1 0 1 cenzyl-L-glutare 2.78 0.00029	ene) idene) .525) ,15 .74).80 1.30 nate)) 0.87 1.70	5 5 4 5	6 5	0,000	.8 .8 .8 .8 .8 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9	- 3	24 24 24 24 34 34 30 10	នេ នេ នេ នេ នេ នេ	8 8 8 CC	41
Poly(\frac{1}{2}-L-\frac{1}{2}\] Poly(\frac{1}{2}-L-\frac{1}{2}\] Poly(\frac{1}{2}-L-\frac{1}{2}\] Poly(\frac{1}{2}-L-\frac{1}{2}\] Poly(\frac{1}{2}-L-\frac{1}{2}\]	amain), see Printments subonylethylene), (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acetic acid (98/2 -L-benzyloxycarbonylgrop dichloroscetic aci dimethylfomamid dichloroscetic aci beptane (55/45 vol) (90/10 vol)	benzyl- 2 dené), (1 7 or- you ylidéné), (id de id/	β- s anine	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0. coloryl-Leghstam 2.78 0.00029	ene) idene) .525) ,15 .74).80 1.30 nate)) 0.87 1.70	5 5 4 5	6 5	0,000	.8 .8 .8 .8 .8 .9 .8 .8 .7 .7	- 1	24 24 24 24 34 34 10 10	13 13 13 13 13 15 15 15	8 8 8 0 0 0	41 41
Poly((benzy)!inino) of Poly(Iminocarbonyl-l Poly((iminocarbonyl-l Poly((iminocarbonyl-l	amain), see Polylindon subonylethylene), (Polylindon dichloroscetic acid L-benzyloxycatbonylethyli m-cresol bexamethylphosphe amide chloroimni/dichlor acetic acid (98/2 al-benzyloxycatbonylpropy dichloroacetic acid imethylformamid dichloroacetic acid beptane (55/45 vol) (90/10 vol)	-benzyl- 2 dene), (1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	β- s anine 5	carbonylethyllde ycarbonylethyllde ycarbonylethyllde 0. cyl-L-aspartate) 1 0 1 cenzyl-L-glutare 2.78 0.00029 6 5.4	ene) idene) 526) 1.1574 0.80 1.30 0.84 0.85	5 5 4 5	6 6 5 5	0. 0 0 2 0	.8 .8 .8 .8 .8 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9 .9	- 3	24 24 24 24 34 34 30 10	នេ នេ នេ នេ នេ នេ	8 8 8 CC	41
Poly((benzy)!inino) of Poly(Iminocarbonyl-l Poly((iminocarbonyl-l Poly((iminocarbonyl-l	amain), see Polylindon subonylethylene), (Polylindon dichloroscetic acid L-benzyloxycatbonylethyli m-cresol bexamethylphosphe amide chloroimni/dichlor acetic acid (98/2 al-benzyloxycatbonylpropy dichloroacetic acid imethylformamid dichloroacetic acid beptane (55/45 vol) (90/10 vol)	-benzyl- 2 dene), (1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	β- s anine 5	carbonylethyllde ycarbonylethyllde ycarbonylethyllde 0. cyl-L-aspartate) 1 0 1 cenzyl-L-glutare 2.78 0.00029 6 5.4	ene) idene) 526) 1.1574 0.80 1.30 0.84 0.85	5 5 4 5	6 6 5 5	0. 0 0 2 0	.8 .8 .8 .5 .8 .7 .8 .7 .5 .1.5	- 1	24 24 24 24 34 34 10 10	នេ នេ នេ នេ នេ	8 8 8 0 0 0 0	41
Poly((benzy)!inino) of Poly(Iminocarbonyl-l Poly((iminocarbonyl-l Poly((iminocarbonyl-l	amain), see Polylindon subonylethylene), (Polylindon dichloroscetic acid L-benzyloxycatbonylethyli m-cresol bexamethylphosphe amide chloroimni/dichlor acetic acid (98/2 al-benzyloxycatbonylpropy dichloroacetic acid imethylformamid dichloroacetic acid beptane (55/45 vol) (90/10 vol)	-benzyl- 2 dene), (1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	β- s anine 5	carbonylethyllde ycarbonylethyllde ycarbonylethyllde 0. cyl-L-aspartate) 1 0 1 cenzyl-L-glutare 2.78 0.00029 6 5.4	ene) idene) 526) 1.1574 0.80 1.30 0.84 0.85	5 5 4 5	6 6 5 5	0. 0 0 2 0	.8 .8 .8 .0.8 2 7 1.5 1.5	- 1	24 24 24 24 34 34 10 10 10	នេ នេ នេ នេ នេ នេ	8 8 8 0 0 0 0 0 8	41
Poly((benzy)!inino) of Poly(Iminocarbonyl-l Poly((iminocarbonyl-l Poly((iminocarbonyl-l	amain), see Printments subonylethylene), (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acetic acid (98/2 -L-benzyloxycarbonylgrop dichloroscetic aci dimethylfomamid dichloroscetic aci beptane (55/45 vol) (90/10 vol)	-benzyl- 2 dene), (1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		carbonylethylldeycarbonylptopyli 0. cyl-L-aspartate) 1 cenzyl-Legistard 2.78 0.00029 G 5.4 2.85 37.7 31, (Poly(N = G	ene) idene) 525) 1.15 .74 0.90 1.30 0.87 1.70 0.53 0.68 0.85 0.55 -hydrow	5 5 5 4 6 6	6 6 5 5	0. 0 0 2 0	.8 .8 .8 .5 .8 .7 .8 .7 .5 .1.5	- 1	24 24 24 24 34 34 10 10	នេ នេ នេ នេ នេ	8 8 8 0 0 0 0	41
Poly((benzy):-L-glut Poly((benzy):Imino) of Poly((minocarbony):-l Poly((minocarbony):-l D, L Poly((minocarbony):-l	amain), see Printments submylethylene], (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chloroform/dichloroscetic acid direthylformamid dichloroscetic acid imethylformamid dichloroscetic acid beptane (55/45 vol) (90/10 vol) dichloroscetic acid direthylformamid dichloroscetic acid beptane (55/45 vol) (90/10 vol) dichloroscetic acid direthylformamid methylformamid methanol	denzyl- 2 denze), (1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0. cenzyl-L-glutare 2.78 0.00029 6 5.4 2.85 37.7 1), (Poly(N - (3	ene) idene) .525) .525) .530 .80 3034 3087 1.70 0.53 0.68 0.85 -hydrox 1.6 0.6 ~	5 5 4 5	6 6 5 5 4 4 6 6 6 6 C ghtta:	0. 0 0 2 0	.8 .8 .8 .0.8 2 7 1.5 1.5	- 1	24 24 24 24 34 34 30 10 10 10	23 25 25 25 25 25 25 25 25 25 25 25 25 25	В В В СС СС В В	4
Poly((benzy):-L-glut Poly((benzy):Imino) of Poly((minocarbony):-l Poly((minocarbony):-l D, L Poly((minocarbony):-l	amain), see Printments submylethylene], (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chloroform/dichloroscetic acid direthylformamid dichloroscetic acid imethylformamid dichloroscetic acid beptane (55/45 vol) (90/10 vol) dichloroscetic acid direthylformamid dichloroscetic acid beptane (55/45 vol) (90/10 vol) dichloroscetic acid direthylformamid methylformamid methanol	denzyl- 2 denze), (1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	B-slanine)) 5 120 Poly(β-beng 5 70 25 (Γοly(γ-b 25 2 21 13) 21 2 25 2 25 3 propylidene) 25 2 26 2 27 (Poly(γ-b 28 3)	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0 1 cnzyl-L-glutam 2.78 0.00029 6 5.4 2.85 7.7 1), (Poly(N - (3	ene) idene) .525) .525) .530 .80 .300 .87 1.70 0.53 0.68 0.55 -hydrum 1.6 0.6 ~	5 5 5 4 6 6	6 6 5 5 4 4 6 6 6 6 C ghtta:	0. 0 0 2 0	.8 .8 .8 .0.8 2 7 1.5 1.5	- 1	24 24 24 24 34 34 30 10 10 10 10 21	21 21 22 21 22 22 22 22 22 22 22 22 22 2	8 8 8 CC CC BB	4
Poly((benzy):-L-glut Poly((benzy):Imino) of Poly((minocarbony):-l Poly((minocarbony):-l D, L Poly((minocarbony):-l	amain), see Printments subonylethylene], (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acetic acid (98/2 -L-benzyloxycarbonylgropy dichloroscetic acid imethylformamic dichloroscetic acid beptane (55/45 vol) (90/10 vol) dlchloroscetic acid dimethylformam yl-L-(N-hydroxypropy)-cai methanol water yl-L-methoxycarbonylgrop yl-L-methoxycarbonylgrop	dene), (dene), (for- vol) ylidene), (dene), (de	B-slanine)) 5 120 Poly(β-benz 0 25 (Foly(γ-b 25 2 21 1] 21 2 25 25 3 propylidene) 25 25 (Poly(γ-c 25 25 26 30 27 26 30 28 30 29 30 20 40 20	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0 1 cenzyl-Leghstam 2.78 0.00029 6 5.4 2.85 7.7 1), (Poly(N - G	ene) idene) .525 .) .525 .) .15 .743030317053685959595968	5 5 5 4 6 6	6 6 5 5 4 4 6 6 6 6 C ghtta:	0. 0 0 2 0	.8 .8 .8 .8 .8 .8 .8 .8 .7 .1.5 .1.5 .1.5	- 1	24 24 24 24 34 34 30 10 10 10	23 25 25 25 25 25 25 25 25 25 25 25 25 25	В В В СС СС В В	41 4
Poly((benzy):-L-glut Poly((benzy):Imino) of Poly((minocarbony):-l Poly((minocarbony):-l D, L Poly((minocarbony):-l	amain), see Printments arbonylethylene], (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chloroform/dichloroscetic acid (98/2 -L-benzyloxycarbonylgropy dichloroscetic acid dimethylformamid dichloroscetic acid beptane (55/45 vnl) (90/10 vol) dichloroscetic acid dimethylformamid dichloroscetic acid politylene (55/45 vnl) (90/10 vol) dichloroscetic acid methylformamid withylformamid methanol withylformamid yl-L-(N-hydroxypropyl-cal methanol	dene), (dene), (for- vol) ylidene), (dene), (de	B-slanine)) 5 120 Poly(β-benz 0 25 (Foly(γ-b 25 2 21 1] 21 2 25 25 3 propylidenc 25 25 3 propylidenc 26 25 3 propylidenc 27 25 3 propylidenc 28 3 propylidenc 29 3 propylidenc 20 3 propylidenc 21 25 3 propylidenc 22 35 3	carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0 1 cnzyl-L-glutam 2.78 0.00029 6 5.4 2.85 7.7 1), (Poly(N - (3	ene) idene) .525) .525) .530 .80 .300 .87 1.70 0.53 0.68 0.55 -hydrum 1.6 0.6 ~	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	6	0. 0 0 2 0	.8 .8 .8 .8 8 	- 1	24 24 24 24 34 34 10 10 10 40 33 21 21	15 15 15 15 15 15 15 15 15 15 15 15 15 1	8 8 8 0 0 0 0 0 0 0 0	41
Poly((benzy):-L-glut Poly((benzy):Imino) of Poly((minocarbony):-l Poly((minocarbony):-l D, L Poly((minocarbony):-l	amain), see Printments subonylethylene], (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acetic acid (98/2 -L-benzyloxycarbonylgropy dichloroscetic acid imethylformamic dichloroscetic acid beptane (55/45 vol) (90/10 vol) dlchloroscetic acid dimethylformam yl-L-(N-hydroxypropy)-cai methanol water yl-L-methoxycarbonylgrop yl-L-methoxycarbonylgrop	dene), (dene), (for- vol) ylidene), (dene), (de	β- s anine) 5 120 Poly(β-benz 5	carbonylethyllde ycarbonylptopyli 0. cyl-L-aspartate) 1 cnzyl-L-glutar 2.78 0.00029 G 5.4 2.85 37.7)], (Foly(N - G methyl-L-glutar 29	ene) idene) .525 .) .15 .743030313031705355hydrw 1.6666666666	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	6 G 5 G 6 G G G G	0. 0 0 2 (9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8 .8 .8 .8 8 		24 24 24 24 34 34 10 10 10 10 40 33 21 21 21	15 15 15 15 15 15 15 15 15 15 15 15 15 1	8 B C C C C C B B C C C	41 4
Poly((benzy):-L-glut Poly((benzy):Imino) of Poly((minocarbony):-l Poly((minocarbony):-l D, L Poly((minocarbony):-l	amain), see Printments subonylethylene], (Poly(N- dichloroscetic acid L-benzyloxycarbonylethyli m-cresol bexamethylphosphe amide chlorofum/dichlor acetic acid (98/2 -L-benzyloxycarbonylgropy dichloroscetic acid imethylformamic dichloroscetic acid beptane (55/45 vol) (90/10 vol) dlchloroscetic acid dimethylformam yl-L-(N-hydroxypropy)-cai methanol water yl-L-methoxycarbonylgrop yl-L-methoxycarbonylgrop	dene), (dene), (1 or- you ylidene), (de d		carbonylethyllde ycarbonyletopyli 0. cyl-L-aspartate) 1 0 1 cenzyl-Leghstam 2.78 0.00029 6 5.4 2.85 7.7 1), (Poly(N - G	ene) idene) .525 .) .525 .) .15 .743030317053685959595968	5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	6 5 5 4 4 4 6 6 5 5 C G G 6 6	0, 0 2 (.8 .8 .8 .8 .2 .7 1.5 1.5 1.5 20 2	- :	24 24 24 24 34 34 10 10 10 40 33 21 21	15 15 15 15 15 15 15 15 15 15 15 15 15 1	8 8 8 0 0 0 0 0 0 0 0	41 4

Polymer	Solvent	Тетр.	K x 10 ³	a	No. of	·	Mol. Rang	- ء		Method	Remarks	Ref,
		(℃)	[ml/g]		Fr. \	N . P.	Мх	10	_			
	thoxycthylideneiminocarb	onul -1 -h	rdmx ve thVlic	deneiminocarbo	nybnethy	lene). (Pol	y(Asp(OCH	(₂)-5	cz(H)-G)	y))		
iy(iminocarbonyi-t-me	dichloroscetic acid	50	868	0.367		9	0.25	3	1.1	SA	B,C	457
urtminosamosul d' -n-c	itrobenzyloxycarbanylpro				lutamate	:))						
th(fulfill(sext)ser. A p p r	dichloroscette acid	25	11.5	0.72	••	10	1	•	5	LS	В	608
	dimethylformamide	25	0,0170	1.36	••	10	1	-	5	ĿS	В	608
ludiminacadonilal abbi	enylethylidene), Poly(L-		inine))									
ny(mmocatoonyr-s-pm	chloroform	25	0.00346	1,48		11	2.2	•	14	LS	В	465
D, L	chloroform/dichloro-										_	460
•	acelic acid (2/3 vol)	21	118	0,55						LS	В	400
oly[(methylimino)carbo	nylmethyleas], (Poly(121	cosine))									_	46
	watst	20	56	0.88		5	0.7	•	1.6	EG	С	401
oly(1-proline), see Poly	r[(L-1,2pymolidindiyl)car	bonyl] g	roup 3.9.									
		3,5 P	OLY (UREAS)	. POLY(URETH	anes), i	POLY (IMINI	ES)					
		ge f	3 - 0 14B ⁰ .	35 P: number o	<u> </u>		P=4-1	2		CR.	D	47
oly(iminoethylene)	water			N atoms	. 7			_				
oly(oxytetramethyleneo	xycarbonylimino-2,4-101	yiene imin	ocarpony))			-			1.5	16	c	49
	dimethylformamide	30	54	0.74		5	0.35	-	1.6	డక	-	-11
oly[oxytetramethylense	xyearbonylimino-(G-peni	yloxy-1,	3-pheaylene)	iminocarbonyi)		_			4 2	sv	С	41
	dimethylformamide	20	8.1	0,88		5	0.9	-	4.3	34	·	-11
oly(oxytetramethylcne	xycarhonylimbo-[6-(ott	.wH.wH-p	erfluoroalky	1eac)0xy-1, 8-p	henylene	:] =iminoca:	rbonyl)					
number of F atoms						_				sv	¢	4
4	acetone .	20	7.1	0, 81		5	0.5	-	4		Ç.	4
8	3001006	20	4.3	0.785		5	2	٠	16	5V SV	c	4
12	acetone	20	13.5	0.67		5	1,7	•	28	SV	c	4
16	acetone	20	25.6	0,615		5	0.0	•	9	SV		•
Poly(ureyleneheptameth	ylene)								0.4	ıs	c	4
• • •	dichloroacetic acid	46	338	0,505		10	0.3	•	2.4 2.4	15 21	c	4
	sulfuric acid (90%)	25	600	0,714		14	0.13		2.4	عا	c	4
		46	223	0.506		7	0_06		2.4	مر کا	c	4
	(9 17 %)	25	37.5	0.757	••	5	0, 4 0, 2	•	2.4	LS	c	. 4
	(98 %)	46	240	0.53		7	0,2	•	2,4	ш	J	·
				3.6 POLYGUL	FIDES)							
Poly(thiopropylene)	benzéut	20	3,3	0.86	7	••	8,8	-	20.4	15	В	4
			3	7 POLY(PHOS	PHATES)							
			-						•			
Poly(oxy(bydroxyphospl	ninylidens)] aqueous NaBr											
	(0,35M)	25	6.5	0,69		16	1	-	125	LS	c	•
	(0,415M)	8 25	49.4	0,50		9	1	•	125	LS	c	•
	hinylidene)]. sodium sa		•••									
bulli oxid planax house	aqueous NaBt											
	(0,036M)	25.	5 69	ø 0,61		S	0.0	9 -	. 1	EG	c	
thing algorithment and the	see Poly[oxy(hydroxyph						•					
TOTAL DESIGNATION OF WORLD!				OXANES), POI	YGUSES	OUTOXANE	:S)					
• • •		_	, , .	DARRES), POI	.1 (3210)	2010/411/2	~,					
		(lallylene)]									
Poly(dimethyl silozana	e), see Poly(oxy(dimeth)						٠.			\$D	,	
	enylatisesquioxane)			0 90	,		1.2	,	- 16	40	•	
Poly(dimethyl silozana	s), see Poly(oxy(dimeth) enyldisesquioxane) benzene	21	1.4	0,90 0,54			20		- 230	SD	1	
Poly(dimethyl silozana	enylstisesquioxane) benzene	21 31	1.4 110	0,84	•							
Poly(dimethyl slioxani Polyl(1-tsobutyl-3-phi	enylstisesquioxane) benzene butyl acetate	21	1.4 110		•							
Poly(dimethyl silozana	enylstisesquioxane) benzene butyl acetate ilbesquioxane)	21 31 24	1.4 110 same	0,84) lata) B	
Poly(dimethyl silox and Poly[(1 -bobutyl-3-ph	enylstisesquioxane) benzene butyl acetate	21 31	1.4 110	0,54 as above two d	lata S		20		- 230	SD	1	

POLY (SILOX ANES)

Polymer	Solvent	Temp.	K × 70	8	å N	io. o	sembp	B8	Mol. W	. 4		Methu	od 1	Remarks	Rcf.
•		[°C1	[mi/g	3		Fr.	W,P.		M x 10	_				<u> </u>	
											•	LV		A-B	424
oly[oxy(dimethyls(lylene)]		20	12		0.66	4	••		5.5	1.		LS		A	425
ь	enzene	20 θ 78.7	76		0,50	3	••		8 -	10		5D		A .	426
	TOWNSTHEATT-		78		0,50	5			10 -	9		15		A,R	425
b	rumocyclohexane	A 28	74		0,50	5			3.3 -	30				A	427
		θ 29.0	81		0.50	5			5 -		16	OS ~~		A	427
1	putanone	B 20			0.55	8		•	5 -	1	56	os			425
		30	48		0.50	2	-	-	94 •	1	06	LS		A	427
•	ethyl todide	9 2,1	70		0.50		•	2	5 -		66	20		A	425
	pheuctole	9 63	79		0.50	4	_	_	4,5	•	0 6	LS		A,R	428
	•	g 89.5	73		a,66			?	0,3	•	50	QS.	,15	C	
	tolucne	20	20.0					7	1.9		13	LS		С	429
		25	2.4		0.84	5				•	92	50		A	425
		25	8.2		0,72	-		7	2	. 1	L30	QS			430
		25	21.	5	0,65						1.0	, OS			56
		25	75		υ, 50		5								
	bromocyclohexane/	- 28 2	75.	ь	0.50		4		4.5	-	106	1.5		٨	425
	phenetole (6/7 vol)	A 38.3		-											
	chlorobenzenc/dime-	•										15	,	A	425
	thyl phthalate		78		0.50		3		8	-	106	12	•		
	(45/6 vol)	e 57.5	, ,,												
	CF /C CI F														
•	(33,17/68.83 wt).												_		424
	low cohesive energy	7			0.50		4		55	-	120	1		A-B	431
	density mixture	g 22.			0.64		10	••	4	-	35		S	A	431
star type, 3 branches	toluene	20		. 9			10		0.H	-	25	1	.5	٨	-31
	toluene	20		. 6	0.54										400
Polyl oxy(dimethylailylen	-1-1 4-phenylene-dim	ethy lat ly l	ene]				6		7	-	40	1	15	В	499
bold axid muccularity	tolvene	25	13	1.2	0.75		v								
					_				2.5	_	27		OS	A	433
Poly(oxy(dipropy silylen	E)]	e 76	8	7,1	0.50		4 G		2.5	_	30)	os	٨	433
			10	_			- Li	••							433
	2-pentanone	p 30	10	9	0.50				17		. 45	3	os .	A	
	toluene	g 10 25		9 3.5	0.50 0.58		16	••	1.7	•	. 45	3	os	A	
	toluene						16		•	•		•	os is	A	439
Poly(oxy(methylsilylene	tolucne c)}	25	4	3.5		i		••	0.1	•	- 50	•		A	439
Poly[oxy(methykilylene Me/Si=1.5	toluene chlorabenzene	8 50 8 20	4	3.5	0.58	i	16		•	•		•		A	439
	tolucae chlorobenzene chlorobenzene	8 50 8 20	4	3.5	0.58	i	16		0.1	•	- 50	0	រន	^	
Me/Si=1.5	tolnene chlorobenzene chlorobenzene/di- methylphthalate	8 20	35	3.5 86	0.58	i	16		•	•		0		^	
Me/Si=1.5 Me/Si=1.8	tolitene chlorabenzene chlorabenzene/di- methylphthalate (90.7/9.3 wt)	8 50 8 20	35	3.5	0.58 0.21	i	16 12	••	0.1 5	•	- 50	0	is is		43
Me/Si=1.5 Me/Si=1.8	tolirene chlorabenzene chlorabenzene/di- methylphthalave (90, 7/9,3 wt) kilylene)]	95 9 24 8 2	, 4) 35 0 2	3.5 26 40	0.58 0.21	8	16 12	••	0.1 5 6	•	- 50 - 10	0000	21 23 24	A	431 43 43 43
Me/Si=1.5	tolitene chlorabenzene chlorabenzene/di- methylphthalate (90.7/9.3 wt)	9 24 9 24 8 2	3 35 0 2 5	3.5 26 40 5,52	0.58 0.21 0.21	8	16 12 3		5 6 6	•	- 10 - 15 - 15	0 0 0 0 24 24	21 23 24 24	A	43 43 43
Me/Si=1.5 Me/Si=1.8	tolirene chlorabenzene chlorabenzene/di- methylphthalave (90, 7/9,3 wt) kilylene)]	9 24 9 24 8 2 8 3	35 0 2 0 2 5 10.4	3.5 26 40 5.52 51.5	0.58 0.21 0.2 0.7 0.5	8	16 12 3 13		0.1 5 6	•	- 50 - 10	0 0 0 0 24 24	21 23 24	A	43
Me/Si=1.5 Me/Si=1.8 Polylaxy(methylphenyl	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalare (90.7/9.3 wi) kilylere)) cyclohexane dilsobutylamine toluene	9 24 9 24 8 2 8 3	3 35 0 2 5	3.5 26 40 5,52	0.58 0.21 0.21	8	16 12 3 13 9	 	0.1 5 6 6		- 10 - 15 - 15 - 15	0 0 0 0 24 24 24	21 22 23 24 24 25	A A	43 43 43
Me/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalave (90.7/9.3 wt) kilylene)] cyclohex ane discbutylamine tobusace	9 24 6 2 6 3	3 4 3 35 0 2 5 5 10 4	3.5 36 40 5.52 51.5 3.90	0.58 0.23 0.2 0.7 0.5	8 2 0	16 12 3 13 9	 	0.1 5 6 6 6	•	- 10 - 12 - 11 - 11	0 0 0 24 24 24	21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	A A A	43 43 43 43 43
Me/Si=1.5 Me/Si=1.8	chlorabenzene chlorabenzene/di- methylphthalave (90.7/9.3 wt) kilyleve)] cyclohexane discoutylamine tolueae copylmathykilylene)] cyclohexyl sceta	9 2 4 5 6 2 6 3 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3.5 3.6 40 5.52 51.5 3.90	0.58 0.21 0.2 0.7 0.5 0.7	8 2 60 18	16 12 3 13 9 20		0.1 5 6 6	•	- 10 - 15 - 15 - 15 - 15 - 4	0 0 24 24 24 51	21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	A A A	43 43 43 44 44 4
Me/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl	chlorabenzene chlorabenzene/di- chlorabenzene/di- methylpitthalate (90.7/9.3 wt) tallylene)] cyclohexane ditsobutylamine tobusea copylmethylsitylene)] cyclohexyl sceta ethyl acetate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	35 0 2 5 10.4 25 25.0	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92	0.58 0.23 0.22 0.7 0.5 0.7	8 2 10 18	16 12 3 13 9 20		0.1 5 6 6 6	•	- 10 - 15 - 15 - 15 - 15 - 4	0 0 0 24 24 24	21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	A A A	43 43 43 43
Me/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl	chlorabenzene chlorabenzene/di- chlorabenzene/di- methylpitthalate (90.7/9.3 wt) tallylene)] cyclohexane ditsobutylamine tobusea copylmethylsitylene)] cyclohexyl sceta ethyl acetate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3.5 3.6 40 5.52 51.5 3.90	0.58 0.21 0.2 0.7 0.5 0.7	8 2 10 18	16 12 3 13 9 20		0.1 5 6 6 6 12 20		- 10 - 15 - 15 - 15 - 15 - 4	0 0 24 24 24 51	15 15 15 15 15 15 15 15 15 15 15 15 15 1	A A A	43 43 43 44 44 4
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalave (90.7/9.3 wt) kilyleve)] cyclohexane disobutylamine tolueae copylmathykilylene)] cyclohexyl sceta ethyl acetate methyl hexanoau	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	35 0 2 5 10.4 25 25.0	3.5 26 40 5.52 51.5 3.90 41.0 5.92 44.5	0.58 0.21 0.22 0.7 0.5 0.7	8 2 10 18 50 70	16 12 3 13 9 20 12 9		0.1 5 6 6 6 12 20	•	- 10 - 15 - 15 - 15 - 15 - 4	0 0 24 24 24 61 51	23 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	A A A A	43 45 45 44 4 4 4
Me/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalave (90.7/9.3 wt) kilyleve)] cyclohexane disobutylamine tolueae copylmathykilylene)] cyclohexyl sceta ethyl acetate methyl hexanoau	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	0 2 0 2 5 10.4 25 25.0 25 772.8	3.5 36 40 5.52 51.5 3.90 41.0 5.92 44.5	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.7 0.5 0.0	88 2 60 68 8 70 550	16 12 3 13 9 20 12 9 7		0.1 5 6 6 6 12 20 44	.7	- 10 - 15 - 15 - 15 - 4 - 4	00 24 24 24 61 51 51	23 25 25 25 25 25 25 25 25 25 25 25 25 25	A A A A	43 45 44 44 4 4
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalate (90, 7/9,3 wt) kilylene)] cyclohexane discoutylamine topugnathykilylene)] cyclohexyl socta- ethyl acetate methyl hexanoate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	0 2 0 2 5 10.4 25 25.0 26 77.8	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5	0.58 0.21 0.21 0.7 0.5 0.7 0.6 0.0	8 2 0 8 50 70 50 92	16 12 3 13 9 20 12 9 7		0.1 5 6 6 6 12 20 44		- 10 - 12 - 11 - 11 - 4 - 4	0 0 24 24 24 61 51	13 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	A A A A A B B	43 45 44 44 4 4
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalate (90, 7/9,3 wt) kilylene)] cyclohexane discoutylamine topugnathykilylene)] cyclohexyl socta- ethyl acetate methyl hexanoate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	0 2 0 2 5 0.0.4 25 25.0 27.8	3.5 26 40 5,52 51.5 3.90 41.0 5.92 44.5 0.77 2.56	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.0 0.0	8 2 10 18 50 70 50 92 90 85	16 12 3 13 9 20 12 9 7 14		0.1 5 6 6 6 12 20 44	۳,	- 100 - 100 - 110 - 111 - 4 - 4	00 24 24 24 61 51 51	ន នេះ	A A A A A B B B	43 45 44 4 4 4 4 5
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalate (90, 7/9,3 wt) kilylene)] cyclohexane discoutylamine topugnathykilylene)] cyclohexyl socta- ethyl acetate methyl hexanoate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	0 2 0 2 5 10.4 25 25.0 26 77.8	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.36 0.13	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.7 0.6 0.7 0.1	8 2 0 18 18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	16 12 3 13 9 20 12 9 7 		0.1 5 6 6 6 12 20 44	, 7 . 4 . 7	- 10 - 12 - 15 - 15 - 4 - 4	00 24 24 24 26 61 51 51 51	13 13 13 13 15 15 15 15 15 15 15 15 15 15 15 15 15	A A A A A B B B B,	43 45 44 4 4 4 4 5 5 1, 501,
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalate (90, 7/9,3 wt) kilylene)] cyclohexane discoutylamine topugnathykilylene)] cyclohexyl socta- ethyl acetate methyl hexanoate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	0 2 0 2 5 0.0.4 25 25.0 27.8	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.36 0.13 7.6	0.58 0.23 0.23 0.7 0.5 0.7 0.5 0.7 0.6 0.0 0.0	8 2 0 18 50 70 50 92 90 86 10	16 12 3 13 9 20 12 9 7 7 14 8 5		0.1 5 6 6 6 12 20 44	,7 .4 .7	- 10 - 12 - 15 - 1 - 4 - 4	0 0 24 24 24 61 51 551 85 15	ន នេះ	A A A A A B B B B B B B	43 43 44 44 4 4 4 5 1
M=/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(n-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalave (90,7/9,3 wt) kilyleve)] cyclohexane disobutylamine tolueae copylmathylsilylene)] cyclohexyl sceta ethyl acetate methyl hexanoxu	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	0 2 0 2 5 00.4 35 25.0 25 772.8	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.36 0.13	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.7 0.6 0.0 0.1	8 2 0 18 50 70 50 92 90 85 10	16 12 3 13 9 20 12 9 7 7 14 8 5 8		0.1 5 6 6 6 6 12 20 44	,7 .4 .7	- 10 - 12 - 11 - 1 - 4	00 24 24 24 61 51 51 51 88 15 31	13 13 13 13 15 15 15 15 15 15 15 15 15 15 15 15 15	A A A A A B B B B,	43 45 44 4 4 4 4 5 5 1, 501,
M=/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(n-trifluoxopi	chlorabenzene chlorabenzene chlorabenzene/di- methylphthalate (90, 7/9,3 wt) kilylene)] cyclohexane discoutylamine topugnathykilylene)] cyclohexyl socta- ethyl acetate methyl hexanoate	9 2 4 2 2 4 3 5 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6	5 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 0 0	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.36 0.13 7.6	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.7 0.6 0.0 0.1	8 2 0 18 50 70 50 92 90 86 10	16 12 3 13 9 20 12 9 7 7 14 8 5		0.1 5 6 6 6 6 12 20 44	,7 .4 .7	- 10 - 12 - 11 - 1 - 4 - 4	0 24 24 24 25 51 551 551 88 15 31	21 22 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	A A A A A A B B B B B B B B B B B B B B	43 45 44 4 4 4 5 5 5
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorabenzene chlorabenzene/di- methylphthalave (90.7/9.3 wl) kilylene)] cyclohex ane disobutylamine toluene copylmethylsilylene)] cyclohexyl sceta ethyl acetate methyl hexanoat cane) benzene	25 9 24 8 2 9 3 5 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	0 2 2 2 2 2 1 2 1 2 1 2 1 2 1 2 1	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.56 0.13 7.6 0.13	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.0 0.0 0.0 0.0	8 2 0 18 50 70 50 92 98 85 10 ,70 ,70	16 12 3 13 9 20 12 9 7 14 8 5 8 12		0.1 5 6 6 6 12 20 44	.7 .4 .77	- 10 - 12 - 11 - 1 - 4 - 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21 22 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	A A A A A A B B B B B B B B B B B B B B	43 45 44 4 4 4 5 6 6 7
Mn/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(y-trifluoxopi	chlorene chlorobenzene chlorobenzene/di- methylphthalate (90,7/9,3 wl) kilylene)) cyclohexane disobutylamine tolueae copylmethylsilylene)) cyclohexyl secta ethyl acetate methyl hexanoau cane) benzene bromoform benzene/bromo	25 9 24 9 2 9 3 5 10 10 10 10 10 10 10 10 10 10 10 10 10	30 35 35 35 35 35 35 35 35 35 35 35 35 35	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.56 0.13 7.6 0.13	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.7 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	88 2 2 0 0 18 8 6 0 7 0 5 0 0 9 2 9 0 0 8 5 1 0 0 0 9 2 9 0 0 8 5 1 0 0 0 9 2 0 0 0 0 9 2 0 0 0 0 0 0 0 0 0	16 12 3 13 9 20 12 9 7 7 14 8 5 8 12 5		0.1 5 6 6 6 12 20 44	.7 .4 .7 1.7	- 10 - 12 - 11 - 1 - 4 - 4	00 00 24 24 24 24 61 61 61 61 71	13 15 15 15 15 15 15 15 15 15 15 15 15 15	A A A A A B B B B B B B B B B B B B B B	43 45 45 44 4 4 4 7 7 8 1
M=/Si=1.5 Me/Si=1.8 Poly[axy(methylphenyl Poly[axy(n-trifluoxopi	chlorabenzene chlorabenzene/di- methylphthalave (90.7/9.3 wl) kilylene)] cyclohex ane disobutylamine toluene copylmethylsilylene)] cyclohexyl sceta ethyl acetate methyl hexanoat cane) benzene	\$5 9 24 8 2 8 3 5 5 6 3 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6	0 2 2 2 2 2 1 2 1 2 1 2 1 2 1 2 1	3.5 3.6 40 5.52 51.5 3.90 41.0 5.92 44.5 0.77 2.36 0.13 2.38	0.58 0.21 0.21 0.7 0.5 0.7 0.5 0.7 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8 2 0 18 50 70 50 92 98 85 10 ,70 ,70	16 12 3 13 9 20 12 9 7 14 8 5 8 12		0.1 5 6 6 6 12 20 44 1 0 3 10 8 8	.7 .4 .7 1.7	- 50 - 10 - 15 - 15 - 4 - 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12 12 12 13 15 15 15 15 15 15 15 15 15 15 15 15 15	A A A A A B B B B B B B B B	43 45 45 44 4 4 5 5 1 5

IV-20	
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Polymer	Solvent	•	K x 10 ⁸			samples	Ra	uge .	4	Method	Remarks	Re
	- V	[°C]	[ml/g]		Ft,	W,P.	М:	x 10				
			s,9 POL	Y(HETEROC	тусцсы)							
olv[(1 3-dihvdm-2-ax	okoben zofutau-1 -y lidenej	1=1 Aunhen			•	henvienel						
-,,,	dinethylformamide	, -, - pu	277	0.59	7		1,4		5.5	ıs	В	50
ly[(1.3-dfby&-3-ox	-2-phenylisoindole-1-yli				loxv-1 4-	nhenvienel	-, -		0.0	_	•	۰
, , ,	tetrachloroethaue	20	41.0	0,684	10		0.9	_	3	LS	В	5
	tetrahydrofuran	20	259	0.488	5	••	1		3	15	8	5
lyl(5,7-dihydro-1,3,	5,7- tetraoxobengo(1,2-c					vlenc -(1.3		3 -0 ×1				
	dimethylformamide	20	328	0,516	26		0.4		17	US	В	رى 5
ily(1 -isobuty1-2,5-oxo	•			*,510			5.4		• •	W	P	-
.,	butyl acetate	21	55	0.65	13		19	_	340	SD	A	5
ly{(4-pheny1-1, 2, 4-t	riazol-3,5-diyl)-1,3(or 1	. 4) - phenyl		****			••		0.10	JD	•	
,	phenol/water (90/10		845	0.56		5	1.8	_	2,7	05		5
ly[(L-1,2-pyrrolidted	-		· · ·	٧.٠٠	_	•	7.0	_	۵, ۱	ω.		-
•••	water, acetic acid	25 no	simple telation	an		6	1		5	os	c	5
aly(1-p-toly1-2, 5-axo				-		•	•	-	•	J	•	3
,. ,,,- -	dimethylformamide	21	15,5	0.7	6		4		56	SD	В	5
	,	-		-••	•		7	-	5 0	U		,
		3.10 C	OPOLYMERS (1	MALEIC AN	HYDREDE	. SULFONE	3 5)					
			•									
oly[(tetrahydro-2,5-di	oxo-3, 4-furandiyl(1 -isobo		lene)]									
	acctone	30	124.7	0.506	5		21	-	111	LS	8	8
	butanone	30	119.4	0.512	5		21	-	111	LS	В	ŧ
	tetrahydrofurzo	30	75.6	0.552	5		21	-	111	LS	B	8
oly[(tetrahydro-2,5-di	oxo-3, 4-forandiy l(1 -metl	oxycarbony	y) - 1 - methyleth	ylene)]								
	acetone	30	12.4	0.59	€		20	-	71	LS	В	
	dimethylsulfexide	30	7.5	0,77	6	••	20	-	71	LS	B	:
	dicarde	30	26,1	0.64	В		20	-	71	LS	В	
	tetrahydrofuran	30	13,4	0, 69	6	••	20	-	71	LS	B	5
oly[(tetrahydro-2, 6-di	0xo-3, 4-forandiyi) (1 - phe	nylethyleni	:)] ^									
	acetone	80	8.69	0.74	6	••	13	•	75	OS	A	ā
	tetrahydrofuran	30	5.07	0.81	6	·	18	-	75	OS	A	5
oly(sulfanyl(butylethyl	ene)]											
	acctone	20	8.9	0.74	7		5	-	60	LS, SD	В	4
	pen zene	25	8,9	0.70	5			-	107	O\$	A,R	4
	cylorotom	25	5.8	0,75	6	'	7		54	OS	A,R	4
	dioxane	25	6.2	0.76	8		9		107	O\$	A .	4
	haxylchloride	g 13	33	0.55	5		10		60	LS,SD	B	4
	butanone/2-propanol					•				·		
	(29.8/70.2 vol)	e 8	53	0.50	6		7	-	54	os	A	4
	(37/63 vol)	B 24	53	0.50	6		7	-	54	os	A	4
	diaxane/hexans											
	(40/60 vol)	B 20	бъ	0.50	7		9	-	107	OS	A	4
oly(splfonyi(1 -methyl-	1 -propylethylene)]											
•	chloroform	20	5.9	0,81	6		4	-	50	os	A	4
	butanone/2-propanol											
	(89.5/60.5 vol)	e 22.5	91	0.50	. 6		4	_	50	OS	A	4
	butanone/bexane											
	(35,4/64.6 VOD	0 11.5	91	0,50	6		4	-	50	05	٨	6
oly[sqlfonyl(phenyleth)	(ena))											
	tetrahydrofurau	30 -	3.89	0.76	5		15	•	40	os	A	4
	•		4. ŒILUI	OSE AND I	DERIVATT	VES						
mytose	dimethy) sulfacide	20	3.97	0,82		14	2	_	217	LS	С	5
•		25	1,25	0.87	9		22		310	ī?	B	5
		25	15,1	0,70	-		.8		180	re S	В	5
					R					_		
	ethylenediamine	25 25 25	30.G 15.5	0.64 0.70	6 6	••	27	-	220 310	LS LS	B B	5

Polymer	5olvent	Temp.	K x 10 ³	a No	, of sai	mp les	Mol. Range	_		Method	Remadis	Ref.
·		[°C]	(ml/g)	f	r. V	V.P.	M x 1	0-4				
			** *	0.62	14		8	. 1	.80	LS	В	519
mylose (Cont'd.)	formamide (Cont' d.)	25	30,5 13,2	0.68		12			217	LS	С	517
	walst	20	13,4	0,00		_						
	austone/dimethyl sulf-	- 00	83.1	0.51		10	2	- :	157	LS	C	517
	oxide (43.5/56.5 vol)	8 sn	65.1	****								
	aqueous KCl	70 £	33.9	0.69	5		16	-	230	is.	В	521
•	(0,33M)	22.5	112	0.60	5		16	-	230	LS	В	522
		A 25	115	0,50	6		27	-	220	LS	В	520
		B 25	61,1	0,50							В	523
	10.0	e 25	01,1	0,20								
	rdneone KOH		0.05	0.77	7		8	~	180	1.5	5	519
	(0.15M)	25	8,36	0.78	5		16	-	229	LS	В	522
	(0.2M)	25	6,92	0.76	G	•-	27	_	220	LS	В	520
	(0_GM)	25	8,50	-	5		31	_	310	1.3	₿	518
	(1M)	25	1,18	0,89	,-	16	2		217	LS	C	517
•	aqueous NaOH (0,5M)		3.65	0.85	12	••	12	_	480	15	8	524
Amylose triacetate	chlorofotm	30	1.06	0.92		••	21		102	LS	· A	525
		30	4,90	0, 85	4		21	_	102	LS	A	525
		50	5.20	0,83	4		71	-	19	SD	D	526
	methyl acetate	25	5.60	0.90		3		•	310	LS	В	519,529
	nitromethane	22,5	8.50	0,73	12		14	-		15	A	524
	•	30	9.99	0.70	4		21	•	102	ᄕ	Ä	52
		50	8.71	0.76	4	••	21	•) 0 <u>2</u>	ы	~	
	chloroform/cyclohexa	08										52
	(80/20 vol)	30	4,54	0,85	4		21	-	102	ls 	A	52
)	(30/50 vol)	30	7,41	0,79	4		23	-	102	IS.	A	34
	methanol/nitromethar											
		.E g 30	98,4	0.51	4		21	-	102	LS	A	52
	(70,7/29.3 vol)	30	6,49	0,75	4		21	-	102	12	A	52
	(50/50 val)		10,23	0.76	4		21	-	102	ıs	A	52
	(25/75 vol)	30	10,20	•••								
	nitromethane/propans	3i	01.5	0,50	12		14	-	310	LS	В	51
•	(43,3/56,7 vol)	g 25	91.6	0,66	12		14		310	15	В	51
•	(50/50 vol)	25	17.0	0.90		26	4		490	LS	В	52
Amylose tricarbanilate	acetone	20	0,814	0.92		25	4		- 360	LS	В	51
	dioxane	20	0,906	-	••	20	4		- 360	LS	В	5!
•	pyridine	20	0,589	0,92		20	•					
Amylose tricarbethus;	methylcarbamate						9		- 380	L٧	В	5
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	acetone	20	27.6	0,63	13		•			_		
Carboxymethyl amylo	se, sodium salt		•									
	aqueous NaCl									LS	A	6
	(0.36M)	37,	5 25.2	0,64					m	os	В	5
	(0,5M, pH 8)	35	209	0.53	G		5		- 27 - 29	LS	В	9
	(0.78M; 0.02% N	AN_) 35	37.1	0,61	б		7		+ 20		-	
Dictiylaminoethyl as		3										
	aqueous NaCl								- 23	LS	В	
	(0.78M: 0.02%)	IAN.) 35	82.8	0.66	5	••	4		• 23	ш		
Austria and codium		3							- 4	~-	с	
Arginic acid, sodium	aqueous NaCl (0.2)	MD 25	7.97	1.0		7	5		- 19	05	C	•
	table "Properties of Cellu	lose Mat										
cetunose, see apo,	THE PERSONS IN COLUM	25	33.8	0.77	5	••	20		- 100	\$D	C,R	
•	cadoxen	25		0.76	4	••	1.	0	- 3,4			•
		20		0.66	9	••	2		• 25	os	c	
	cuptammonium	25		0, 81		5	В		• 96	OS	C	
		25		0.905			1		- 54	O\$	B-C	:
	cupriethylene .	2	, 15,5	-,								
Collulose acetate be	•		, 14.5	0.83		. 5	1		- 71	os	8-€	
	acetic ecid	2		0,85			1		. 21	OS	B-<	;
	acelohé	2		1.0	5		2		- 14	SD	В	
Collulose triacetate	acatone	2			_		2		- 39	OS	A(1) }
		2		0.82		•	1		- 18	os	B,F	₹
			S 8.97	0.90			2		- 30	os	C	
		2	5 33,0	0,76		•	. 2		- 18	LV	c	
	chloro(orm	•	0 4.5	0,9		5	3	•	- 10			

Polymes	Solvent	Temp.	K x 10 ³	a	No. of	samples	Mo), Ran	DE.		Method	Remarks	Ref
·	·	[℃]	[ml/g]		Fr.	W.P.	М×		4			
ellulose triacetate (Cont	1 d 3											
emine niterate (col)	o-cresol	30	G.16	0.9	5		3	_	18	LV	c	542
	acetone/water						•					
	(80/20 vol)	20	2,65	1.0	9		2	_	11	as	В	539
	(,,	25	21.0	0.802	_		2	_	30	os	c	531
	ethanol/methylene											
•	chloride (20/80 vol)	25	13.9	0,834			2	-	30	os	С	535
ellulose tributyrate	butanone	30	4.3	0, 27	7		6	-	32	LS	B,R	543
		30	18,2	0.80	7		8		22	ĊS	C-D	544,
	tributyrin	0	5.3	0.87	4		G		32	LS	В	54
		25	5.6	0.85	4		6		32	LS	В	54
		50	6.1	0,82	4		6		32	LS	В	54
		70	6,2	0.80	4	•-	6		82	រេ	8	54
	dodecane/tetralin	••					_				_	
	(75/25 vol)	6130	82	0,50	3		11		21	OS	C-D	544,
ellulose tricarbanilate	acetone	0	1.10	0,93	C		31	-	220	ເຮ	B-C	54
ALTONOMISMO		20	4.66	0,84	••	16	7	-	270	LS	В	52
		25	1.45	0,91	6	••	31	-	220	LS	B-C.R	54
		35	1.51	0.90	6	••	51	-	220	LS	B-C	54
	anisol	9 94	130	0,50	4	••	31		220	LS	B-C	54
	cyclohexanoue	25	1.91	0,86	5		31		220	រេ	B-C	54
	Cycionomicoc	35	2.02	0.85	5		31		220	LS	B-C	54
	dioxane	20	4.20	88.0		15	7		270	LS	В	52
	GUALIC	25	0,813	0.97	5		31	_	220	LS.	B-C	54
		35	0,865	0,96	5		31	_	220	LS	B-C	54
		50	0.849	0.95	4		31	_	94	کا	B-C	54
	pyridine	20	3,46	0.85		12	7	_	270	ıs	В	52
ellulose tribexanoale	dimethylformamide	8 41	245	0.50	7		6	_	130	rs —	C-D	54
CHIROR ATTREXEDURE	dinxane	35	125	0.57	7		4	_	130	LS	C-D	54
cellulose trinitrate	acetone	20	2.80	1,00	13		,		250	SD	В	54
CIMIONE MUMITAGE	alemane.	25	1.69	1,00	11		8		266	15	B-C	54
		25	1.66	0,86	G		68		250	LS	c	55
		25	10.8	0.89	4		4		93	Ľ	C-D	55
(N content, 12.9 wt%)		25	6.70	0.90	4	••	15		200	LS	A,R	55
(N content, 13,9 wt%)		25	6.93	0,91	.6		8		400	LS	A,R	55
(W CODIENT, 13,5 WEW)		25	7,00	0,933	9		5	_	50	os	B-C	53
		25	11.0	0.91	33		3	_	100	OS	B-C	52
		25	23,5	0.78	6		7	_	26	os	B-C	55
	hand anners	ය 25	5.68	0.769	9	••	5	_	50	OS.	B-C	52
	butyl acetate	25	23	0.81	6	••	7		26	os	B-C	55
	butyl formate	25 25	2,24	0.810	6	••	7	_	22	OS	B-C	58
	cyclohexanone	25 25	3.8	1,08	33	<u>:</u>	3		100	os	B-C	55
	othyl acetate	25	8,3	0.90	6		7		26	OS	B-C	55
		25	1,66	0.86	7		68	-	250	LS	c T	55
		30	2,50	1_01	6	**	4	_	57	LS	B-C	58
	ethyl butyrate	25	3,64	1.01	,	•-	5	-	50	os.	B-C	51
		25	30	0.79	6	••	7		26	20	B-C	54
	ethyl formate	25 25	12.2	0.75	10	••	3	_	6 S	OS	B-C	5
	ethyl lactate	25 25	5.0	0.93	6	••	7	-	26	os	B-C	5
	2-beptanone methyl scetate	25	18,3	0.835	6	••	7	_	22	OS.	B-C	5
	•	25 25	6.1	0.835	6		7	-	22	OS	B-C	8
	nitrobenzene	చ 25	1,1	1.04	6	••	7		26	OS	8-C	51
allulan Maranaar	pentyl acetate		1,1		3	••	10		32	ros ros	B-C	5-
ieliniose trioctanoste	dimethylformanide	8140		0.50	3		B 10	•	32	OS OS	B-C	5
	A-bpenyfbrobenof	8 48 20	129	0.50	5		8	-	35	OS	B-C	5
	toluene	30	17.3	0,70					33 8	SD SD	A	5
thyl cellulose	acetone	20	1.61	1.05	5		1,1 1,1	•	8	SD SD	Â	5
	bensene	20	1,34	1,07	5			-	14	. Cas	я-с	S
		25	29,2 35,8	0.81 0.78	6 6		4	-	14	. Cs	B-C	5
			215 A	D 78	F.	••			16	U.S	D 7L	3
	butanone	60 25	18,2	0.84	6	••	4	_	14	OS.	B-C	5.

CALCULATED UNPERTURBED DIMENSIONS

Polymer	Solvent	Temp.	K x 10 ³	a 1	No, of	•		Mol.	<u> </u>		Method	Rema ris	Ref.
•		(°C)	(m\k]		Fr.	W.P.	·	MxI	0				
				5.00	6			4	-	14	os	B-C	558
Ethyl cellulose (Cout' d.)	butyl acetate	25	14.0	0.87	6			4	_	14	os	B-C	568
Emal Commission (•	60	18.1	0,83	6			-		14	OS	B-C	558
	chlorofurM	25	11.8	0,89	G			4		14	os	B-C	568
		46	9.3	0.90	6	•••		4		14	os	B-C	558
	ethyl acetate	26	10.7	0.89	6	••		4		14	OS	B-C	658
	•	60	14.0	0.85	-			10		41	LS	B-C	559
•	methanol	25	52.3	0,65	6			4		14	OS	B-C	558
	gitroethane	25	4,2	0.96	6			•	_	14	OS	B-C	558
	A.2-0-	60	22,6	0.79	6		•	•	•	••			
Ethyl bydroxyethyl cellul	038		` 3 7	0.80	4	-		5	-	18	SD, LS	В	560
•	Water	25	17.4	0.79	4	-	-	8	-	61	1.5	В	561
Hydroxyethyl cellulose	Chyoxeu	25	9,63	0,87	5	_	_	8	-	63	LS	В	\$61
	Water	25	9.03	0,01									
p.s. 0.85	aqueous HCl (4M)	25 L	n]=1.2DP _w 0.87	(DP _w ; wel	ght-avo	≉ege d	egice o	f polyme	riza	tion)		B	562
Methyl rellulose				A 55			5	12	-	57	LS	C-D	583
p.s. 1.74	water	25	916 0.8G	0,55	•-		•				LS	В	562
μ, α,	aqueous HCl (4M)	25 [77]=1.6DP 0.86 γ										
Sodium carboxymethyles							5	5		106	LS	C	564
D, 5. 0.2-1.0	CtqoxxII.	25	33.4 0,	0.73			•					B	562
D.S. * 0.96	aqueous HCl (4M)	25 [T1] =0,97DP	•									
D.S. 0.62-0.74	aqueous NaCl							4.5	_	35	SD	C-D	565
· D.S. 0.62-0.12	(0.001M)	25	0,100	1.40	8			4,5		35	SD	C-D	565
	(0.01M)	25	0.646	1,20	3			4,5	Ī	35	SD	C-D	565
•	(0, 1M)	25	12.3	0,91	8	В	•-	4, a	•	CH)			
	(0,,							- 4		108	1.S	C-D	566
	(0,005M)	25	7.2	0,95		4		14	_	106	1.6	C-D	566
D,S,* 1,08	(0,00M)	25	8,1	0,92		4		14	-	- 106	LS.	C-D	566
	(0.05M)	25	19	0.82		4		14	•	106	ıs	C-D	565
	(0.2M)	25	43	0,74		4		14		. 100	_		
	• • •			- 00			0,	94				С	567
Sodium cellulose xanti	aqueous NaOH (1M)	٥	[m] = 1.67DP	+0.62D	5 _{2,3} -0	_20D\$	5 DP						
	-1		D5, deg	ee of subst	itution	at the	1(=2,2	or 6) po	dtio	as in g	lucosa unit	_	568
•		05	1	0.49		5		0,1	2			c	569
Destron, linear fraction	n formamide	25		0.50		10		2		- 10		C.R	570
•	water	25		0.50		10		0.	04	- 4	.5 EA	c	568
		25		0.63		6		0.	2	- 3	.2 05	C	56 9
		50		0.2		9		80			រេ	С	
branched fraction	water	25		0,2	•	6							571
			2,7	0,8	7	4		7		- 8		A	577
Gnaram triacetate	acetonitrile	2		0.5		5		206		- 53		B	572
		21		0.3		5		7		- 10		A	573
Hyahmonic scid	aqueous HCl (0,1M			0.1		8		7		- 10	3 15	٨	570
- •	aqueous NaCl (0.2)			0.8		5		11		- 30	3 L5	A	57
	(0,5	M) 2	3 31,0	-•-							- 4	8- A	57
_ Salep glucomannan t	riacetate nitroethane	3	o this relation (not follower	1	11	••	D	.06	-	0.4 15	V -0	3.

D. CALCULATED UNPERTURBED DIMENSIONS OF FREELY-ROTATING CHAINS

Chain Type	r /M ^{1/2} func mol 1/2 -1/2 [nm mol g]	Reference
Polymethylene chain Amylosic chain Cellulosic chain Gutta-percha (trans polydiene) Natural rubber (cis polydiene) Polypeptide	1/2 0.509/M _{u1/2} 0.218/m _{1/2} 0.426/M _{u1/2} 0.191/m _{1/2} 0.790/M _{u1/2} 0.553/m _{1/2} 0.580/M _{u1/2} 0.290/m _{1/2} 0.402/M _{01/2} 0.201/m _{1/2} 0.383/M _u 0.221/m	2 518 G20 620, 621 G20 G20

D.S. - Degree of Substitution

UNPERTURBED DIMENSIONS

E. UNTERTURBED DIMENSIONS OF LINTAR POLYMEN MOLECULES (References in parenthesti give data which were used for calculation of end-to-end distance in Ref. 3.)

Polymer	Solvent	Temp.	5 /M 1/2 x 10	K * 103	t /M 1/2 x 10	r /M/2 x 10		σ = 1, t C = 1 / n	Mathod	References
		[36]	9 [am]	[mi/g]	. (wa)	[nm]				
			1, MAIN-	CHAIN ACYC	1, MAIN-CHAIN ACYCLIC-CARBON POLYNERS	NŒRS				
		•		1,1 700.7	1,1 POLY(DIENES)					
A Company of the Comp		•				;		ň	TA	
stytomaticae)	diogane	20.2	:	505	820	547	1,46	27.5 27.5	, tv	
04%-cls. 24-1.2	Isobutyl acetate	20.5	:	<u> 5</u>	088	242			Ļ,	
95%-cts, #6-1,2	2-pentanone	59.7	;	157	2 2 2 3	046 646	1,51	. 4.	\$	£1
	3-pentanone	10.9	;	162	623	4.	1,50±0.08		οΛ	36
92%-cts, 54-1.2	benzene	35	;	1504 20	05 1029	201	1,45,0,08	7.3	۷G	<u>ਨ</u>
31%-trans, 25%-1,2	cyclohexane	28	;	3006	00.00	140	1.36±0,05	6.9	۷G	रू
19%-ban, 21%-1,2	cyclohexane	20	;	2804 25	10104 30	891	1, 22±0, 07	₽.4	מפ	
97%-trans, 3%-1,2	cyclohexane	\$	ï	2004 30	0# 1CEA	2	8		VT	
100%-ch	various solvenis	20	50 -3 -1 -2 -1 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -					ST	
	undilated	20~80 QI		-			1.23	9.6	۷>	829
100%-trans	decalln ddlnbed	2 2	din 7 2/dT = -0.6 x 10 -3 (deg -1	10-3 [deg-1]					st	
			•							CO 65/6
Poly(chloroprene) Affe-trans	benzene	ĸ	:	116± 20	7501 30	535	1.40±0.15		2 7	
	butanone	23	:	13	150	200		19	7	
	cyclohexane	45.5	; ;	101	755	635	1. 43	6,6	ΤΊ	
	butanone	52	212	ļ	3					
Poly(froprene)					910. 45	. 485	1,6740.0	9 5.0	VT.VG	3,37
100%-cls	benzene; 2-pentanone	02~	; *	7 707	24.1	485	1.74	5.5	æ	
	ditsoptopyl ether	25	019	: ;		!			7	
	2-pentanone	14.5	2	3 11g					TS	
	undibuted	-10~10 d	.10~10 dio 7 /dT = 0,41 x 14 ceg 1	1 [386] 11					ST.VT	
		30~70 d	In t 2/dT = 0.58 x	10 [deg]		5	1.38	2,2	7	
1 And been	monel acetate	2	;	232		3 1	3 6	, S	Ţ	
	dloxane	41.7	41.7 2 3 191	191	910	3	3	<u> </u>	ST	
	undiluted	∎ up 08~	74T = -0.27 K 10	[deg]						

427 2.1826.05 6.6 4 6 VT,VG 46 4 6 4 VT,VG 427 2.1826.20 15.1 1.7 427 2.1826.20 15.1 1.7 427 2.1826.20 15.1 1.7 5.7 427 2.2740.20 15.1 5.7 5.7 5.2 4.2 4.2 4.2 4.2 4.2 4.2 4.3 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.4 5.8 4.3 4.3 4.3 5.8 4.3 4.4 5.8 5.8 4.3 4.4 5.8 5.8 4.3 4.4 5.8 5.8 4.3 4.3 5.8 4.3 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8				[m[/a]	(mm)	[uu]				
Polyti-bulend missies ethylep-chhoestee — 70	•			1.2 POLY(ALKENES)					
muchoses ethyleyclohocane	• - / -						5.0	9	VT,VG	3(81)
Compared				123+ 10		4 27	1.82£0.00		1	18
Compare	- / -		067		11804 70	421	2, 18±0, 20	1.61	LS	•
Common plant Comm			35 250 E 20	8-01	- T-			,	; <u>t</u>	18
1-chloromphishic triangle 160 - 200 q. r. 2 10 (16 g. 3) 1 (16 g.	-		140~200 dla 1 /dT = (0.5	1 × (2) × (2)	12004 90	427	3,0040.20	18.0	; ;	4
1-chicomorphishment riberline 160 - 20 1 1 1 1 1 1 1 1 1			80 8104 50	00 × 10 -3	deg]				s ts	
1-cholomospithisms: teballo; 100 mt c,			140~200 gm r /ul = (0.1	[deg]	1		•			
1-chtocompetibilitation: bEfallon: 140		;	160 400 6 701 - 151 6				A0 0402 1	6.3	۸c	3461,67,
Postfield		phthelene: tetrallo;	;	230	950± 40	282	20.021	8.5	Υ,	
Secrition 146 1320+156 582 2.2710-28 10.3 1.7	El so el			;	1070	283	5.		77	•
https://december 146 145				Ą	940* 40	283	1.61		- 1	
144 1591-10 153 1015 1582 1.87	Ms-2-6	hylbexyl adipate			1320+150	583	2.27±0.26	10.3	5	
biphenyl 127.5 - 353 1000 589 1.84 6.8 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0					1 986	25	1.87	٦. ٩	:	
Approximation 137.3 136.4 1080 582 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86 6.9 1.86			vo.	<u> </u>	eno T	263	7.	8.6	1	
diphenylmethrine 158, 2	tipheny.			307	1070		1.86	6,9	\$	
diphenytmethane 147.2	dodecan	<u> </u>			1080	4 6	98 1	6.8	7	
Application of the control of the				316	1,080	796	2	1.6	T	
dipenyl ether 153 - 3 160 552 1.79 6.4 V dipenyl ether 153 - 3 160 552 1.79 6.4 V bypkenyl 127 5 - 322 1065 552 1.89 1.1 V dipenyl ether 150	dipheny	trethate		302	1065	7.RQ		₽.9	7	
Second control 180,1 1.1	deceno]	_		282	1060	282	1 70	4.9	Ţ	
Designate 1905 19	. dipheny	rl ether		288	1040	283		1,1	Υ	
byphenyl 127.3	octanol	• .		330	1085	369	3 5	7.0	TV	
diplomyturethane 142.2 369 1070 582 1.59 1.59	Diphen	7		322	1.085	285			VT	
diphenyl ether undiluted with bi- accordance; dorties on the bi- inducted diluted with bi- late and reference late diluted with bi- benzere benzere benzere phrestole phrestole hyptenetole hyptenetole benzere cyclobarane late diluted with hear decame late diluted with hear late diluted late diluted with hear late diluted with hear late diluted late diluted with hear late diluted late diluted with hear late diluted with hear late diluted late diluted with hear late diluted with hear late diluted late diluted with hear late diluted with hear late diluted late dilute	dippen	ymethate		306	1070	282	1.64	š		
undiinted; dihited with tit- accentance; dorulescontane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ rexadecane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ texadecane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ texadecane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ texadecane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ texadecane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ texadecane tad din r ² /dT = -1.2 x 10 ⁻³ {deg} ⁻¹ tad decane tad decane decane decane tad din r ² /dT = -(0.140.001 x 10 ⁻³ {deg} ⁻¹ tad decane t	dicher	ri ciber	163.9	3					t's	
accentance dord scontance 140 din r / dT = -1.2 x 10 d (deg 1) Pexadecace	mpon	ted; diluted with til-	es.	۳ - ا	[460 -]				•	
Paradecane 140 dln r 2/dT = -1.2 x 10 deg 1 17040.05 5.8 1.7040.05 5.8	at been	ne: dotriscontane	140~180 dh r /dī = ·		. 9				٧	
Paradecane 106		Ţ	140 dla r /dT = -1.2 x	10 deg 1						
benzere benzere 105 107± 6 740± 20 412 1.89±0.05 5.8 penetote 804°20 wol) 26 790 166 790 412 1.70±0.05 5.8 penetote 804°20 wol) 26 390 166 790 412 1.90±0.05 7.2 penetote 804°20 wol) 26 390 166 790 412 1.90±0.05 7.2 penetote 804°20 wol) 26 390 166 790 412 1.90±0.05 7.2 penetote 804°20 wol) 26 390 166 790 710± 60 281 1.90±0.10 9.1 penetote 804 40-140 din r 2/dT = (0.53±0.05) x 10 3 (deg 1) 369 2.14 9.2 penetote 80.4 2 penetot	hexad	ecane	D			;	1 70+0.05		<u>+</u>	
anisote 100 412 1.002.0.0.5.8 benzene 24 1074 6 1404 20 412 1.002.0.5.8 benzene 24 1074 6 1402 20 412 1.002.0.5.8 planetote heptane/popolo (80/20 vol) 26 390 166 780 412 1.9 7.2 undiluted didted with hexa. becombenzene 25 1.000 x to 8 60 201 1.9 cyclohexane 50.4 60 340.05 x 10 3 (deg 1) undiluted 62.4 8 40.140 dln r / / off = (0.3440.04) x 10 3 (deg 1) sundiluted 62.4 8 40.140 dln r / / off = (0.3440.04) x 10 3 (deg 1) sundiluted 80.24 8 60.3440.04 x 10 3 (deg 1) sundiluted 62.4 8 60.3440.04 x 10 3 (deg 1) sundiluted 62.4 8 60.3440.04 x 10 3 (deg 1) sundiluted 62.4 8 60.3440.04 x 10 3 (deg 1)						214	50 0.00		VT	
benzene 24 1.70±0.03 2.12 phenetole phenetole 25 390 166 780 412 1.18 7.2 phenetole solution with heave 25 390 166 780 412 1.18 7.2 unditated, distinct with heave 25 25 100 710±0.00 x 10 100 710±0.00 291 2.14±0.20 11.9 by conclusions 30		•				412	TO CE OF THE PERSON OF THE PER		TV	
phenetole phenetole (80/20 vol) 26 390 166 780 412 1.8 7.2 412 hg 1.2 hg 1.3 hg		2				412	En .0407_1		<u> </u>	
hyperacon (80/20 vof) 25 390 180 130 hyperacon proposal (80/20 vof) 25 390 180 130 unditated: ditated with hexe 60 din r 2/dT = (0.1±0.05) x 10 16±0 1 570, 50 281 1.96±0.15 7.7 decare 25		-				412	6'1	7.	\$	
Expenses proposed and the first of the first		actoring (80/20 vol	26	991	200				Ţ	
radilated: diatreto with the first control of the f	andau.	and demonstrated		9	7				rs.	
decame decame 25 50 11.9 bromobenzene 25 6 5704.50 281 2.1440.20 11.9 rejechtekane 50.4 phenetole 50.4 undlinted 62.4 2.pentand 62.4 90.140 din r /dT = (0.53±0.05) x 10 deg 1 2.pentand 80.140 din r /dT = (0.33±0.04) x 10 deg 1 matinped 80.140 din r /dT = (0.33±0.04) x 10 deg 1	Mille	sted; dituted with men-		0.05) x 10 1de		ě	1,9840,15		٧c	
beomabenzene 23 - 100 710, 60 224 2.742.20 2.7440.10 9.1 cyclohexane 30 - 68 625, 30 291 2.1440.10 9.1 cyclohexane 50.4 - 68 625, 30 291 2.1440.10 9.1 nucliured 40-140 din r //dT = (0.53±0.05) x 10 [deg] 368 2.14 9.2 cycntanol 80~140 din r //dT = (0.33±0.04) x 10 [deg]	decam	<u>•</u>		09		ZHI	9 44.0 20		ΝG	
cyclohexane 50 69 6254 30 291 2.1440.10 5.1 cyclohexane 50.4 69 6254 30 291 2.1440.10 5.1 cyclohexane 50.4 60.5340.05) x 10 3 (deg. 1) 368 2.14 9.2 cyclohexane 52.4 80~140 dln r /dr = (0.3940.04) x 10 3 (deg. 1) cyclohexane 50.4 80~140 dln r /dr = (0.3940.04) x 10 3 (deg. 1) cyclohexane 50~140 dln r /dr = (0.3940.04) x 10 3		obenzene	52	904		787	,		LA	
phenetoke 50.4		hexane		ŧ.	6254 30	291	7, 1410. 1			
modified $40-140 \text{ din } r^2/\text{dT} = (0.53\pm0.05) \times 10^{-3} \text{ [deg }^{-1}$ 368 2.14 9.2 $2.penianol$ 62.4 19.0 121 19.0	all	toke	50.4	3					TS	
undituted 40-140 din r /dr = (0,53±0.00) x 10 (40±8 r 368 2,14 9.2 c.2.4 d.2.5entani 62.4 g1.5 (0.34±0.04) x 10 (40±8 l 368 2,14 9.2 d.34±0.04) x 10 (40±8 l			64	7	1-1-1			•		
2. positivated 80.0.140 dtm r / ft = (0.3440.04) x 10 [deg]		ted.	40-140 din r /dr = (c	9, 53±0, U5) X 10	leek J	368	2,14	8.2	: 5	
Z-granding		10000	62.4	121	3, 2, 4, 6				5	
		interior.) = 10/ 1 mpo+1~08	70,34±0.04) x 10	- fao 1					

Polymer	Salvent	Тетр.	01 × 1V/ S	X x 10	2, c	2) ×	8 8	e 8		
	·	[2]	d (tun)	[B/14]	(am)	(mm)				
Poly(1-pentene) (Crnt' d.)		5	2)] [deo_1] .	٠				TS	634
liotaetic			~60 dhr 2/dT = -0.2 x 10 [deg]	, - 58 					FS	ASS
Poly(propytene)	Income before henvene.	•								
stactic	intalnyl accuse; believe:	12	:	1564 15	835 25	415	1.76±0.05	8.2	VT,VG	3(88, 89)
	tycollexale; tollean	8 5	;	125 \$ 20	775 35	475	1,53±0.04	5.3	۸G	3(88, 91)
	decasum	? 2	:	182	980	415	1.85	8.85	ΥŢ	8
	1-chiotonakhinalene	<u>.</u> 8	: 1	1 <u>7</u> 2	870	475	1.83	7.0	ΤV	D6
	cyclonex anone	: 2	;	120	765	475	1.61	5.2	ΙΛ	6
	otphizaly concentrations decails:									
ווסופכווכ	totes lin	∼140	;	1204 20	7654 40	415	1.61±0.08	5.2	۸c	3488, 96)
		145	:	132	190	475	1.66	5,5	7	OB.
	arbital cinci	145	:	94	917	475	1.49	4.45	ξ,	630
		. .	370+ 30	ı	685+ 30	475	1.4440.07	4.15	5	620
	7	125.1	•	152	800	475	1.70	5.8	L»	6 8
	Achenal street	142.B	i	137	782	475	1.62	5,25	77	*
	dibenzyl ether	183.2	;	106	4119	475	1.51	4.56	L :	
1	hentens	02	1	164	930	475	1.76	0.1	ָל כ	COT .
Syndicated c	troansyl acetate	જ	:	112	843	415	r	f. 25	15	5
			F.3 POLY	(ACRYLIC A	1.3 FOLY (ACRYLIC ACTD) AND DERLYATIVES	INES				
		ē	;	950, 40	1000, 50	267	2.T2±0.10	14.8	VG	(to DE
Poly(acrylamide)	valer	2 6	: :	163	els	363	1,93	A. 3	7	8 01
Poly(acryfic acid)	1.4-dickane	3 4	: :	124	13.6	318	2.38	11.3	VT	108,108
, sodium salt	Aquecus Natt (1.5M)	el at	: :	; :	0801	318	3,24	23	9	Bol
		ci S	: :	181	152	318	2.36	11.1	Ţ	111
	Agreeus Nasch (1, 25M)	2 2	;	210+16	930+ 20	422	2, 2040, 05	9.7	ΟΛ	3(138,138)
Poly(acrylonlivite)	dimethylinthamide	6	!							
(polymd. # -30°C)	V-Dusyrotactone; denotings-	Q.	:	. 520	. 016	422	2,30	9.61	٥	135
	JOHNAMIJOE	2 6	:	200	UGB	422	2,13	9 .1	۷۵	135
(polymd, at 60 C)		<u>ا</u>	.2 × 10 -3	[[[]					ST	636
Poly(buty) acrylate)			76 dly 1 /dT = 0 {deg -1						ST	634
		 -	2/47 2 0 0 30	- 5	•				ST	63\$
Poly(sec-buly) acrylate)	undluted		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	,	•				TS	838
Poly(terf-hutyt acrylate)	undlluted	5 8	701 = -0.2 X 10	- 80 - 80 - 80						
Poly(N, N' -dintethylacryl-	,	ž	;	784 15	670+ 40	gou	2, 17±0, 14	B. 15	۸G	3(103)
sınıde)	methandi; water	P 60	2 14 - 10 410		•				TS	635
Poly(dodecy) acrylate)	indiluted		30 30 30 30 30 30 30 30 30 30 30 30 30 3	90, 10	7204 30	308	2,3440,10	10° U	۸Ġ	3(115,116)
Folytethyl actylates	BOEICHIC: NICCHIDITOR	;							;	:

Polymer	Solveni	Temp. 5 / 08	2 × × × × × × × × × × × × × × × × × × ×		c						.,
		1003	d [mu]	[m1/8]	[mu]	[612]					
		3							z	636	
		80 dla 1 7/4T =	-0.2 x 10	[deg]					7.5	634	
Poly(ethyt acrylabe) un	ווי פון פולים	u	-0.4 × 10-8	[geg]					rs	635	
	-	fo din 7 /dT =	= -9.3 x 10 3	[deg 1]					S.T	635	
prijehovyi acrylate) ur	undiluted	0 ₂ 7.7.] - 01 * 6 U = .	.1 [der]			80 0.00	7.1	٧,	120	
nolu(liments) acrylate) in	ımdiluted	60 din (/ 18/)			540+ 25	287	1, 85±0. 08	: -	٧>	120	
	benzene	22	:	;	540 25	28T	1, 83t0, us	· •	SA.	121	
	biomoben zene	09			1304 30	287	2,4210,10	-	LS	635	
. (2)	2, 2, 3, 3-tetra fluoropropanol	25	£. 6.	[6					Ϋ́Α	120	
2	undilubed	- -	AT 4 F 'G- :		630t 30	182	2,2040.10	- 0	Κ>	120	
	bramobenzene	90	l	;	5444 35	287	1.9040.1		94	3(123, 132)	
transfer to the transfer to th	trom obenzene	90	;	81.10	680+ 30	337	2.0540.19	, ,	;	129	PC
	vertous solvents	33	;		650	332	7.86		: 5	129	DLY
Folkinemy, acidima.	isopenty! scatate	62.5	:	2 5	650	373	1.86		. LA	124	(٨0
	[pur	56.0	•	3 8	680	332	2 09	* ·	5	129	CRI
•	42/28	vol) 20	:	# 6	FES	332	2,00	p.	: :	108	П
-	v 09/66)	val) 30	:	Ž	661	332	2.11	9. •	3 5	835	; A
		27.5	? !	۱ ۲ ;	<u> </u>				Ā		CI
	undflubed	80 dto r /dT = -0.2 x 10 .[deg	"/dr = -0.2 x 10	[deg]					ST	695	D) A
		60 dh e /dt	= -0.2 x 10	[qe8]						genya	MD
Poly(acty) scrylste)	ımdilutea	0				Š	2,42+0,15	٦,,1	٥ >	3(53)	D
ony lethy fo	ne)	Ş	;	101 10	630r 40	Zu2	i			Score.	ERIV
	מיייים ביות לוחובו ביום				•	i o	2,3040,15	10.8	AG A	foreir	'A'
Foly(ptrentdnocarbonylethylene)	ie) Amerikatifonnamide	22	25 684 10	584 10	6001 40	103	•		ST	966	TVE
•	and state of the s	40 din 1, /dT	= -0.3 x 10	[deg]							5
Poly(propyl actylate)					KA MICH CAN	DEREVATIVES					
		-	.4 POLY@-SUB	A POLYGE-SUBSTITUTED ACKNING MCIO, MILE	are nero are				1	9/150 154 15B	
					610. 90	823	01.0486.1	1.85	٩٨' ٢٨ د د د		
	hutangne: 2-propanol	23	:		530	259	2, 06	8.5	3 :	835	
Polybary meanachter	Paranaga Par	23	<u>ن</u>	٦- :	;				,		
	on diluted	50 dh r 7/41	50 dhr 7/4T = 2,5 x 10 loeg 1	[Sao]					ST	835	
		En 415 12	0.2 x 10 [deg]	[deg_]		•	50 6	23.8	۷A	151	
Polyface-buty3 methacrylate) undiluted	undiluted		. 1	:	\$68	Res.	:				
Polyttert-butyl methacrylate) butyl acetate	butyl acetate	3					40.010		ΛG	3(340)	
notations - turbiblieny meth-		é	:	32# 6	515 20	208	AT 76404. Z	86	11/	345	
envision in	Acetone	3	1	8	910	231	ci. 2	3 0	Y.Y	159	
note exclude yet methacrylate butanol	e) butanol	53	¦ '	35.25	400	183	2.04		ΓΛ	189	
contact methodiste	Bopsoppt acetale.	13	•	(F)	200	D6.1	2.58		: 5	159	_
Poly(oxidecy) illering	rentanol	9.92) ;	230	381	2.59	13.4	ı t	636	_
		29.5	7.7	1					;		
	undlisted	60 db 1 ₀ /d	60 dln r /dr = 2,5 x t v	922				e c	VG.VT	3(160)	
Poly(2-ethylbuly) meth-		;	;	36+ 5	5104 30	236	2,1640,13			160	īv•
acrylate)	batanane: 2-propanol	ŝ		2.00	200	236	2, 12	69.70	•		4 1
		27.4	:	į							

	•	тепр.	5 /26 ¥ 10 02 ¥ 50 C1 €p	2 * *	01 ×	of * N Jo	المال المال	2 8 2 8 3 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8	Zerlion	
		[₀ C]	[uu]	[m1/g]	[um]	[1111]				
		£		6 94	565+ 15	288	1,96±0.05	1.1	ΛC	3(161)
Poly(ethy) methaciyinte)	Duvationie	3 5	: :	£ 5	55	288	2.00	9.0	7.	156
	z-propanoi	, ,	:	. E	260	288	3.2	7.55	TV	161
	מוניקיימינה ל ביים המחלים לילו היים	3 5	:	:	260	288	<u>r</u>	7,55	9	161
		3 6	:	£	620	1.15	3.54	25.1	94	163
	and	: 8	;	41.4	530 20	236	2,25±0,08	10.1	VT,VG	3(165)
Poly(hexy) methacrylate)	tutanone				640	23.6	86 6	10.5	VT	165
	2-propanol	32,6	:	7	240	980	34.6	13.1	9	165
			1	3.4.	266	95	ş.	1.	3 5	8
	undfluted	80 db 8	2,2 x 10	~ ,					;	}
Polyfourntyl methacrylate) undiluted	card/Juted	60 dh c	1,4 × 10	-[₈					ST	838
Continue de la contin		ວ~'	£-	Ţ					ST	828
riste)		₹	nr /dr = 2,5 x 10 ldt	l deg 1	9	***	6	14.6	ΛĊ	110
Poly(methacrylic sold)	AGOLOUS NECT		:	3 :	200	2 2	86.0	10 4	ΥΛ	891
Poly(methyl butacrylate)	butanol	13	:	51	0.69	S S	9	, ,	: 5	168
Poly(methyl athacrylata)	2, 6-dimethyl-4-beptanone	13.4	;	67. 0	620	2 48	4. re	3	:	
Alactic	various tolvents	22	;	70≠ 20	6401 80	308	2, 08±0, 20	8.85	VT.VG	3(170,173,174
						;	ì	į	Ė	Car long tar
	butyt chloride	35.4		:	537	806 	1.79	3 .	3 E	283
		40.8	2924 6	:	8204 15	80 °	2, 0140, 03		3 %	8
	benzena, teluene	11	0.72+0.05	;	653 + 25	308	Z, 1240. 0B	٠ ا ټ	2 <u>!</u>	909
	2-methyl-4-pentanone	-42	:	36.0	500	308	1.62	0.53	- (909
	methyl bavolertate	-37	:	41.5	525	308	1.10	e G	.	3 5
	butyl acetate	02-	;	40.0	520	308	1.69	5.7	44	986
	butanone/2-proparol									
	(5R 2/41 B vol)	0.4	:	47.8	650	308	1.78	6.35	٧٢	929
	(55/48 val)	12.1	;	49.B	160	308	1,82	6.65	V.T	636
	\$0. 01/01\	8	:	€0.4	610	348	1.88	1,85	T A	836
	(46 B/53 2 m)	5	:	50.8	610	308	. B9	7.95	1A	926
	Tariot Charles		:	52.6	626	308	2,60	8.0	T,	989
	outy) chierates		1	23	920	308	30'6	9.1	ΤΛ	988
	- neixtran		;	. S. S.	620	308	2,01	8.1	ŢĄ	989 .
	Boamyr acetalic		;	47.4	550. 15	308	1,7840.05	f. 35	٧٦.	119
	4-heptanana	3 :	1		554, 18	808	1, 90+0, 05	9.0	L	179
	acetonitrile	5	:		07.470	9 6	100,000	25. 8	ΤΛ	178
	3-octanne		<u>ب</u>		01 4040	B)	O 0370"	}	: 1:	934
	endiluted	=	/dr = 0.1 x 10	[deg]			•		; ;	901
konsette	acetonitrile		:	75.5	670	800	2, 17	e (; ;	101
	butanone/2-propancl (50/50 vo	val) 30,3	;	6	316	308	7. 32	9.01	· !	101
	3-heptanone	\$:	P4	110	308	2.30	10.1	1 1	161
	propanol	15.9	;	1.97	089 .	308	2.21	9.75	-	3
	D-cymene	152.1	:	9.99	810	308	1.99	7.85	L	191
Potetory methodylates	butanol: butanane	20	;	30* 5	480, 20	219	2, 19±0.09	9.6	VY.VG	3(201)
to the second standing	Contract	16. R	;	:	200	219	2.28	10.4	9	201

											•
		Temp.	s /kt 1/2 x 10	K x 103	1 /H 1/2 × 10	r /N × 10	10,0 ± 0	C = 1 //ul	Method	References	
Polymer	Solvent		. Po		[86]	[ww]					
		(00)	[mm]	(MUB)					ţ	636	
) mdbuted	80 din r ₀	2/dT = 2.2 x 10	-3 [deg]					;		
Poly(ocly) methacrylate) (Cont' d.)		•			90	242	2,1540.18	9.25	٥c	3(37 D)	
Polyth-phenylmethacry1-	noelme	02	:	8 48 E	35026	į	MATTERS				
Aintde.)		Y. 100 8 1	ATHAL ETHERS),	POLY(VINYL A	1 & MOLYCRINYL ETHERS), POLY(VINYL ALCOHOL), POLYCVINYL ESTERS), POLY(VINYL ANGERS)	NYL ESTERS), POL	L(VINIL RALLES		!	98278	
		7.7			100	286	2,0310,01	8.25	ט ע	3(209)	
	dissipation beautiful fitterfide	130	:	52 3 5 4 3	900 FD	404	2,2340.13	8,35) (°	089	
Poly(chloratifluarocthylene)	2,5-dichixonomization	30	;	1824 30	1070	309	~3.5	24	VT.VG	3(242, 244.	
Poly(methoxyethylene)		300	:	~300 93+ 10	T05± 10	332	2.1240.09	P		252,256)	P
Poly(tetrafluoroeinytetie)	variaus tolvents	ដ	:			,	2 3840.0T	11.3	xs	641	OLY
MARIN ECCURIO		ę	D. 85±0.06	0.05	780± 20	335				940	(VII
	3-heptanone	£			;	686	2,24±0.03	10.0	5 !	ä	4X L
	heptane/3-methyl-2-duran mic	26	3181 10		7451 20	388	2.13	₹.	5 5	238	ET
	(28. 8/73.2 vol)		1	101	0.21	332	2.63	8.15	; ;	923	HE
	methabot	8,92	;	9. 86	209	332	2.08	8 .62	. LA	238	3),
		6.98	1	2 2	860	332	1.89	a c	2	3(208,210,212)	PO
	ethanor 6.methyl-3-heptanone	99	:	18		184 A	2,0480.10	o n	TS	638	LY(
Sodoole bearing		8	2 2 x 2 0 0 [dag]						5	838	AIN
Marila Tracer	ıted	1 mg 0 g	0, 10, 10, 0	-1, 6-					1	488	YL
		go alm s	80 din r /dr = 0.5 x 10 1	<u> </u>	6204 25	252	2.48±0.10	12,1	•	,	HAL
fallenment of a second		32.8	:				1 8940 01	8,8	VI,VG	3(217, 216)	
poly(viny) beninated	eyelohexane, tetrahydrofutan;	ę	:	404	5 640± 20	298	2.56	13.1	×	9406	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	methanol/THF (11/83 vol)	2 8	1,03		•	967	2,3240,12		o '	(CON)C	
	1-methylosphthalene	3 €	;			607	1,83±0.15		ָלט פּ	3(22, 22, 22, 23)	
Polyfeinyl bulyrates	benzene henzene	, se	•	1004 30	383	383	2,08			386	
Polyvinyl chloride)	eyelobexendne; tedaniy mozami	155.4	:	126	028	228	2.42	17.1	7.	235	
	benzyl Blodkol	8	ŧ	ត្	9 5	457	1.72	6.9	2 5	3(256)	
olytelny! 4-chlorobenzo	Poly(vlny) 4-chlorobenzoste) butanou putnisme (**)	6	;	128		258	2, 71 \$0, 12		2 5	3/256	
Poly(vinyl flugilde)	dimethylkatmaniae	8	:	91 10		288	2,32±0,12		2	•	
poly(vinyl hexanoste)	benzene	; ;	:	80¥ 10	CC 1019 01	3					
Poly(viny) (sobutyrate)	benzene	3							F.	258	
poly(vipy) methyl ethed	poly(viny) methyl ether), see Poly(memoxyemyem)					253	2, 29±0, 08	_	•		
Poly(vinyl pivalate)	botanone/metranor (0,897 g/ml)	20	:	53+ 5	2 200 × 20						
				1.6 POLY(STYR	1.6 POLY(STYRENE) AND DERIVATIVES	TIVES			ļ	348	
						228	2.50	12.5	ب د د	349	
		6	;	68	910	92B	2,48	18,3	2 5	349	6
Poly(4-bromostyrene)	benzene	9	:		244	822	2,43	11.8	3	SP (SIS) Danse	5
	toluene	2	237				2,1540.01	n 9,26	ΔV	3(307, 300), 300	5
		5	:	∓09	5 \$504 20	107				9 49	. 0
		20							•	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Figure F	Polymer	Solvent	Temp.	S /M x 10 % X 10	К и 10	, M × 10	r./M. * 10	Jo 0 = 0	,8 ,8		
Publication	in the same of the			a [44]	[m1/g]	[801]	[mn]				
Protected 19 12 13 13 13 14 15 15 15 15 15 15 15		•	·					;		٧G	S#6
The part					;	36	197	2,36		23	349
Coloration Col	i	•	30	:	8	615	261	98'6	11.1	ΛG	566
Inclusion Incl	4-chlatostyrene)	toluepe	30	272		16 1023	126	2.5240.07	12'.	2	246
	1.4.1		Ş	:		2 7010	998	2,4940,07	12.2	į	3(357)
Compared	ta_on_lobervistatenel	heptane; toluene	3 8	;		2601 20		2.18	8.0	1.	828
Comparison of the control of the c	(+-cyclama)	toluene	9	,	35.5	610	6)7	66	14.6	1.4	
Contractive		ethenol/ethyl acclate (1/15 wf	ņ 39.5	}	F	640	234	:			
Purintent confidence Confid	(2, 5-dichlonostyrene)	Lineal/hith) acetate (1/13 wf	ŋ 32.ª	:	:			90	4C	ΛG	988
Company Comp	(3, 4 -dichierostyrene)	Butanos, busys and alchimen	•			00 1019	483	2, 18±0, 08		δV	838
bentament and the properties of the properties o	•	chlotaben zene; a-alcinara-		:		2104	H50	2.35±0.07	11.0	2 5	362
Delibert Californius (25/15 vol) State		benzene	3 8	;		£304 15	386	2.28	10.2		
The continue of 24/75 vol 34	a dimethyletyrene)	toluene		;	51.5	600	3			!	362
Parison Column: Colu	(z, e-dimension)	methanol/tolucae (25/T5 vol)						2.37	11,2	1	
Perizon: cycloherane	(o-mertiox) arthur o)	methanni/toluene			62.1	630	260				200
transcription of the control of the	n(p-methoxystyrene)	(lov 9 17/1 840	30	•				6.60	8	77,70	31, 110
Purisone: eyelolucature		(20.1/11.5				450+ 15	284	2, 29±0, u2	•	7	320
Comparison	do-methy bignene?	•	230	:		3 3000	287	2,2040,02		5	320, 321, 322, 323
the containing of the containi	nionic felactic	benzene: cyclohexane	v	:		c #czn	4	2,2940.03		:	•
Colourate parameter		trans-decelln		;		6204 10	į); ;	3(329, 327)
The contract contract The contra		eyelohexane	₽. •					2,3640,19		0.17	928
Tig. 4/20.6 vol) 30	(A) the state of the second	toluene; benzene/methanol		;	741 10		200	2 3140.00		۲,	
## Particle care cyclohexane: ethy	Catlenie (symptomen	79.4/20,6 vol)	ខ្ល		£ 168		3 .				700
benezate: cyclohexane: ethyl sacetate 30 (64 284 2.37 11.2 VG sectate 40 68.8 671 284 2.37 11.4 VG sectate 40 68.8 671 284 2.38 11.4 VG bulanome: cyclohexane: otherer 30 16.4 291 10 685 284 2.31 11.4 VG diethyl succlaste 16.4 291 10 685 284 2.31 11.4 VG diethyl succlaste 16.4 291 10 685 284 2.31 11.4 VG various succlaste 16.4 291 10 685 284 2.31 11.4 VG various succlaste 16.4 291 11.4 291 11.4 VG various condenses 11.2 291 11.4 291 11.4 VG various condenses 11.2 11.2 11.4 291 11.4 VG <		evetohexane	•	1				3	11.0	S V	e Cer
### Secretars	•	Seneral Cyclohexane; ethyl			0.88	1 50	284	; t	11.2	S A	
## Secretary continues and con	ly(in-methylityrefle)	-4-4-		:		671	584	16.5		ږو	2
butanome: cyclahexane: toluene 30 diethyl succlast diethyl succl		2181278	40	:	9 6	, H19	284	7,38		ΔV	621,33
Detailor of the column 16.4 291 1.0.1 10.			20	:	, i	, 609	284	2, 18±0. 0	•	LA	331
buttationer: Operation of the control of				•		1070	284	2.31	10,1	· •	331
diethyl succinate 16.4 291 680 16.4 291 680 1.7 75 5 670 1 16 302 2.2240.05 9.85 VT,VC various tolvents 16.4 291 75 5 670 15 302 2.2240.05 9.25 VT cyclohexane 34 282 5 750 302 2.2240.05 10.4 1.7 cyclohexane 35 300 750 302 2.22 9.85 1.7 cyclohexane 35 300 750 302 2.22 9.85 1.7 cyclohexane 35 300 753 302 2.32 9.85 1.7 bernzene/citharion 25 0.92 ±0.00 100 ±15 302 2.14 9.16 1.7 butances/2-propanol 67 317 100 ±15 302 2.54 10.8 1.7 <	emetheteteres	butanone: cyclabexane; total		:	2	635	900	3,39	11.4	3	
19.4 19.4 302 2.2240.05 9.85 VT.v. VT VI.V. VT VT.v.	War war day	diethyl succinate		791	:	989	ġ				
ethylcyclohexane: methyl-cyclohexane 30 2,15±0.05 9,25 VT expelohexane: methyl-cyclohexane: methyl-cyclohexane 34 282.4 5 650.1 302 2,15±0.05 9,25 VT cyclohexane 35 306 - 730 302 2,28±0.04 10.4 1.7 LT cyclohexane 35 306 - 730 302 2,28±0.05 10.4 1.7 LT cyclohexane 35 306 - 730 302 2,28±0.05 1.1 LT benzene: toluene 26 0.92±0.05 - 7105±16 302 2,38±0.05 10.9 XS benzene/ethnool 25 286 - 7105±16 302 2,14 8.15 LT butancse/2-propanol 67 31 - 645 302 2,14 8.15 VA 1-chlowondecane 32 2 4 31 2 4 1 VA 4			1.5.4	1			;	2 2240.		VT,VC	E 100 000 000
various solvents ~30 various solvents ~30 various solvents various s	•			;		40LB	307	i		~	282, 286, 285, 001, F
ethyleyclabexane: nuethyl- cyclobexane system of the cyclobexane system	ofy(styrene)	varigit tolvents	~30	;							00 00000
70 75 + 5 6504 15 302 2,1347, 2 1,7 1,7 34 2824 5 730 302 2,42 11,7 LT 35 300 670 302 2,22 8,86 LT 26 0.9240,00 7054 16 302 2,3240,04 10.8 KS 26 0.9240,00 7054 16 302 2,3240,04 10.8 KS 26 0.0140,02 7104 15 302 2,14 9.16 LT 25 2.86 753 302 2,50 12.5 LT 26 2.86 775 302 2,56 13.1 VA 82.8 776 302 2,54 12.9 VA 84.8 768 302 2,54 12.9 VA 84.9 775 302 2,54 12.9 VA <td>etacuc</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>۲></td> <td>>= *quy \`</td>	etacuc									۲ >	>= *quy \`
26 2.8840.99 10. 302 2.8840.99 10. 34 3.8840.99 10. 302 2.8840.99 10. 302 3.40 10. 302 3.40 3.40 3.40 3.40 3.40 3.40 3.40 3.40		- Indiana concentration			١		302	2, 15 ±0.	•	<u>1,1</u>	
34 2824 5 730 2.42 11.1 35 306 - 730 302 2.42 11.1 36 300 - 734 16 302 2.32 9.85 11.1 sience 26 0.9240.03 - 7054 16 302 2.3240.04 10.9 10.9 sand 25 286 - 7054 16 302 2.14 9.15 vol) 25 286 - 755 302 2.50 12.5 propanol 67 34.1 - 775 302 2.56 13.1 lecanc 32.8 - 76 175 302 2.54 12.9 secance 34.8 - 76 302 2.54 12.9 secance 34.8 - 76 302 2.54 12.7		ethyleyclonexale;		:	151		302	2.28±0.		H	278
15.5 3.06 73.0 3.02 2.82 9.86 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5		cyclohexane	: 7	282*		21 4064	ę,	2.42	.:. :::		44 9
35 300 - 670 302 2,33±0,05 10.9 36 0,92±0,05 - 705±16 302 2,32±0,04 10.8 36 0,92±0,05 - 705±16 302 2,32±0,04 10.8 36 0,92±0,05 - 705±16 302 2,32±0,04 10.8 36 0,92±0,05 - 705±16 302 2,32±0,04 10.8 36 0,92±0,05 - 705±16 302 2,32±0,04 10.8 36 0,92±0,05 - 705±16 302 2,32±0,04 10.8 37 0,92±0,05 - 705±16 302 2,54 12.9 38 0,92±0,05 12.7 38 0,92±0,05 10.8 38 0		cyclobexane	5	306	:	730		2.22	9,85	3	645
25 0.9240.03 7054.16 302 2,3240,04 10.8 26 0,01±0.02 7104.15 302 2,14 9.15 25 286 645 302 2,14 9.15 anol 67 317 757 302 2,56 13.1 28.8 768 302 2,54 12.9 34.8 768 302 2,52 12.7		•	â	500	:	029	302	9 3340		E	מעע
26 0,0247.03 1104.15 302 2,5220.27 115 26 0,15 25 20.14 0,15 25 25 25 25 25 25 25 25 25 25 25 25 25			9	900		705± M5	302	0.00		XX	
25 286 645 802 2.14 9.15 25 286 645 802 2.50 12.5 480 67 317 757 302 2.56 13.1 6 32.8 768 302 2.54 12.9 46.9 768 302 2.54 12.7			8	ė.		1001	302	2,3529.			
25 286 E45 802 2,14 9,15 Lanoi 67 317 757 302 2,50 12,5 Re 32.8 768 302 2,54 12,9 Re 34.8 768 302 2,52 12,7			52	Ğ						7	628
canol 67 317 757 302 2.50 12.5 canol 67 317 757 302 2.56 13.1 canol 67 317 768 302 2.54 12.9 canol 68.8 768 302 2.52 12.7		benzene; totuene				27.0	302	2,14	A. 10		
into 67 317 757 302 2.50 12.5 13.1		ben zone/ethanol	Š	286	:	ŝ	:			ţ	218
67 347 - 757 592 2.56 13.1 82.8 - 768 302 2.54 12.9 84.8 - 768 302 2.52 12.7		(11, 6/28, 5 vol)	3				606	2,50	12.5	3	949
57 37.2 37.2 2.54 12.9 32.8 3.02 2.52 12.7 34.8 76.8 30.2 2.52 12.7 34.8 76.2 30.2 2.52 12.7 34.8 76.2 30.2 2.52 12.7		butences/2-propanol	,	25	:	เรา	70.0	2.58	13.1	۸۸	
32.8 7.68 302 2.34 12.7 34.8 14.9 302 2.52 12.7 14.2		Ope 61/197	5	-	1	775	342		12.9	۲۸	
94.8 162 302 2.52 12.7			32.B	:	1	768	305	F. 7.		40	
707			8.39	:	}		305	2. 52	12.3		
		cyclmicxane	ě	:	;	200	<u> </u>				

Polymer	Solveni	Temp.	S /M 1/2 x 10	X × 10 ³	r /N × 10	10/N(1/2 x 104	0 0 1/1	0 = 1 /ul	Method	References
	-	(2	d [uu]	[m1/g]	[ma]	[mm]				
							. FI 6	4.6	7	. 290
	200. Pront-decalls 18	a	;	E	355	305	2 22	9.85	Ţ	280
poly(styrenes) (Cons. 0)	-	ž	:	82	010	305	2.17	9.4	Ţ	64 1
. <u>.</u> E		4	:	77.4	g i	976	2.13	₽.₽	۲v	199
E		12,5	:	77.0	£ 1	200	2.11	9.4	VT	647
. •		29, 5	:	17.9	685	200	2,10	8.8	ΥŢ	647
*5	malonate	31	:	30.5	0.00	9	2,19	9.6	۲۷	*
		34	:	79.6	000		2, 12	9.0	7	£ :
	ž.	9,13	:	72.2) 	- CO	2.17	4.6	Λ	641
, :	200	89	;	78.0	ĝ j	765	08.1	7.2	VT	647
. (83.5	:	50,8	e.c	366	2 14	P 6	VŢ	848
•	Laborate and	6. A	;	0.87	455	302	81.6	vo oi	۲۷	648
	2	32.8	;	18.7	650	202	2 20	9.1	ΤΛ	648
-		58.6	:	10.7	165	200	i			
-	exclohexane/methylcyclohexane			,	***	60E	2.17	9.4	77	. 59I
-		34,5	1	77.9	ĝ (600	2.83	9.4	ΥŢ	166
	gen.	43.0	:	77.6	655	300	2.15	5.25	ΥT	183
		48.0	:	74.8	650	700	2.14	9.15	Υ	281
		54.0	:	73.0	H45	200	2.10	8.8	ΤΛ	182
		10.5	1	8,6	635	200	2 13	9,0	7	291
	matemate	Z. Z.	:	711.8	1	300	2 14	9, 15	5	162
			:		S.	202	i		ςτ	834
		150 dln r	/dT = 0.4 x 10	[qec 8]		cue	2, 2710, 03	1 19.3	T/	301,302,303
	92	~34.5		881 3	01 4¢89	100				305,648
SIBCUC, MINNIO				;	900	ave	2,20,02	. 1.8 2	1 2	300, 848
	decatin; dioctyl phthelate	$12 \sim 22$;	1 109	#600 F 1908	305	2,3040,08		رو دو	3(311, 312, 314)
lentacific	beazene: tolizene	30	:	01 406	1 DES	302	2.84	11.3	9 ^	2
	chlorobenzene	25.9	:	2	ļ					950
Poly(styrene-p-sulfonic acid)	Aqueous NRCI (4.1735); aqueous KCI (31.34)	ន	;	20.4	425	214	1.98	1.85	ţ	8
				1.7	1,7 OTHERS					
									Ş	284
Polyf (hiphenyl -4 -y Dethylone)		8	,	43.0	929	230	2. fi3	13.8	9 9	193
	benzene	20~15	20~15 din 1 / /dT = (0.23±0.91) x 10 - 1 (deg 1)	±0.01) × 10	[deg ']	į	28	15.9	2 5	335
	flow (1997) and the state of th	2.0	;	32	680	241	i	:		
Poly(carban)(inoxyetbylene)	dioxane/medianos (co) : : ::	ì				ç	9 49.40 02	7.11	Ŋ	381
Poly(1 -methoxycarbony) - 1 - methoxycarbony - 1 - poly(1 - methoxycarbony) - 1 - poly(1 - methoxycarbony)	Learning terms	30	:	544 1	585	7.67.	9 4240 00		ŢV	361
	dense i trus cione	91	:	54.	-	2.62	- C		VI	368
	etnyibenzene	F	1	78.245	633	222	6.63			
Prijytvinyi carbazole)	tologne chlosoform feltz-	ı					6	15.9	VG	367
	chloroethane; tetrahydrofuran	3 2	}	68€ 2	419	707	i			

Polymer	Solvent	Temp.	S /M 1/2 x 10 02 W x	K × 10	r /M * r 10	* /M 1/2 x 104)D 0 = 0	C • t /nl	Method	References
		[%]	[nu]	[ml/g]	[uu]	[nm]				
ļ			1	5	435	848	1,76	6.2	ΛÇ	264
Poly(1-vinyInaphthalene)	ben zenz	- F	; ;	: 1	406	873	1,63	5.3	VG	364
		00 - 9K 41 - 2 /eT	2 /AT = 47 BTA	9 01 w 00 0 m 10 0 m] -i-				۸G	264
				64.7	610	248	2,45	12.0	ΛC	264
Polyty -vinyinaphthalene)	penzene		: :	: 1	585	248	2.40	11,5	VG VG	264
			, 2 , 4	់ខ	3 -1- [des]				ΛG	264
	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				. :	248	cs. 3.1	C4. 19.2	۲۶	268
	decalm/totuene (13/10 Wt)		; 1	26	680+30	300	2,20±0.10	9,7	VG	371
Polyce -vinyipyridine)	various tolvents	6.	: ;	1 2	636	360	2, 12		S A C	652
	Denzene	2 2	; ;	: F	883	300	2.11	9.8	ον	888
		e 2	; ;	: 2	Sus	300	1, 98	7.85	٨G	825
		£ (:	6 2	220	360	1.90	7.2	οΛ	825
		\$ S	: ;	5 2	084	340	1.86	7,65	ΛG	653
		2 8	: 1	. Ta	9119	300	2, 03	9.15	ΛG	652
		3 9	: 1	3	96	300	2,24	10.0	οΛ	852
	Chloroton	, £		5 E	689	300	2.24	10,0	ΛG	652
	athered.	3 2	. :	94. 10	7104 30	300	2.37±9.10	11.2	ΛG	3(373, 374)
Poly(4-vinylpysidine)	Charles water	ì		1						
Country - 2-membyly bylon	historiae metherol	25	;	89¢ 5	6524 13	282	2.31 ±0.05	9.01	VG VG	378
	College Income	3 8	:		676	282	2.39	11.4	VŢ	361
	A market of market come	4 6	;	89	815	282	2.39	11.4	Ţ	361
	4-meunyi-z-penimina	7	;	2	665	282	2.36	11.11	77	381
	penty, accuse		;	1001	720s 40	292	2,4840.12	12,3	۸g	3(380,382)
Poly(vinyipynolidone)	Water	3 20	: :	52	-650	282	2,22	9.85	Ţ	384
	į	}								
	purguet - 2-babmon	. 2		ā	. 690	242	2,18	9.3	VT	653
	(96/4 vol)	3 1	1	120	440, 20	978	1,6540.30	5.45	ΛĊ	3(261)
Poly(viny) suffite)	squeous NaCl (0,5h4)	n '	:	107	4601100	986	2.18(2.85)		4	259,642
Polyfulnylaulicate acid	aqueous KBr (0, 349h)		:	9 6	# (no.) no.	956	2 1972 66)		Ţ	259, 662
	aqueous XCI (0.349M)		:	7.00	(00.) COO	966	9 3172, 80	_	VŢ	259,642
	(0.65 DM)	26.0	:	2,5	# Incalcuo	204	9 92(9 81)		5	259,642
	(J. 002N)	4 .5	;	F'OR	*(zenhono	962	# (10 mg/ m		. .	259 842
	aqueous NaBr (0,34TM)	9.0	:	85.55 5.5	130(882)	256	2,40(2,30			250 642
	aqueous NaCl (1,003N)	32.4	:	98.1	130(880)*	296	2,46(2,97)		- 1	200
	Aqueous NaBr (1.008N)	- .0	:	9. 8.	725(875)	296	2,45(2,98)	0 12.0	F A	ZPA' R9Z
	•									
			-	1.8 COPOLYNERS	va.					
Poly(scrytonitille-co-styrens)										
39.3/61.7 nol, azeotopic	butenone	30	;	124	910	335	2,30±0,05	5 10.E	٥٧	593, 695
							56			

UNPERTURBED DIMENSIONS

The values of $_0^{1/2}$ and $_0^{1/2}$ given in parenthesis were obtained by using $\Phi_0 = 1.39 \times 10^{-3}$, while those given outside of it by using $\Phi_0 = 2.5 \times 10^{-33}$

	Salvent		× 20	o	5	5					
		(2)	g [Eu]	[mVg]	[mu]	(nm)					
							ć	α -	QA AG	585	
Poly(legylonitrile-co-stytene) (Cont. d.)	dinethylformamide	30	;	170	843	362	7.35		, T	586	
		2	;	23.8	460					ė	
84/16 mel, random 2-pentanene	anone	į					3.2		ڻ •	ğ	
-drbut	on a lc.)	2	:	2					;	C S	
40.5/59.5 mol, random acctone	./- l	ì					2.1		9 (s	883	
	methanol/m-xylene	26	:	15			2.8		9		
01)	004 0/001)	1 23	:	S S			3.1		ָ ט	. 2	
8	(80/30 vai)	£6.	:	18			3.4		י כ	682	
\$9)	(65/35 vol)	2	ı	88			3.4		9 1	688	• •
(20)	(50/50 vol)	: E	:	101			3.2		9	. u	
(3)	(30/10 vol)	, K	;	28			2.5		0	ō	
(10	(10/80 val)	ន	:	\$					ţ	io	59B
	72. 201				;				•		
_	pt methacrylate)	22, 3	:	8 4	499				ţ	•	
51.6/48.4 mol. random benze	ene/nexame (ou/				•	545	2.03		.	. 42	OF
5	≅	22	:	3 0.	495	260	96.1	,	<u> </u>	, w	S S OL
100/0 at benzene	Sene Sene	š	:	35.4	203	380	3.8		,		
75/25 wl toluene	2	. X	;	£ 0.3	544	210	2.05		+ >		
81/33 wt		1 15	;	45.3	883	926	2,12		- !		
69/41 wt		S	1	56.3	043	287	2.16		<u>;</u> !		683
49/51 wt		82	;	₹.	10	288	2,15		. !		83
29.5/70.5 WI		K	•	63.1	613	3.02	2.17		1		ļ
m 51/12		R	:	78.0	3	}			:		114
0/100 wt	•				ļ	308	2.67		3		
poty(ethyl scrylate-co-methyl methacrylate)	ethacrylate)	55	;	:	823	2					
80/20 mol, random acc	Acetros	1					•		!		808
Poly(ethylene-co-or-methylatyrene). [(ET) (MS) 1	e). [(ET) (MS) 1				į	745	2, 38		1		;
m/n = 3/4 but	enene/cyclohex and	2	:	135	620	ŝ					2
•	(60/40 vol)	3	٠			000	2.22		L'A		5 2
m/p = 5/4 but	hutanone/cyclobexane	è	;	140	930	5 6 6	2.2		T A		ζ
	(15/55 vol)		:	112	710	2					:
س/u = 2/2 داره	cyclohexane	}					3,22		אט		3 6
Caylate -co-styre		ĕ	:	1041	2 10104 20				71, 76		
the cover random et	ethyl acetate	3 :	:	75	099				ΤV		2
	various solvents	£~		95	ego G				VG		128
		230	:	2 6	ASS				> L>		139
33/67 mol. random		~30	:	Ξ;	94					1	128
61/53 mol, random		°2 ~	;	94	e t				•		
59/41 mol, tandom		5	:	75	000						6.8.3
79/24 mol. sandom		3			;	9.	1,89		14		
ge .00	tyrene)	8 04	:	20	583	5	5		VG		E13
100/0 mol, random 1	1-chlocobuline			83	618	308	₹				
Hoper for Jyro		40.8								Teresass name 1V-52	V-52

.

	Solvent	Temp.	S /M x 10	10 K x 10	r /H × 10	c/M x 10 T /M x 10	ع د ارد د د ارسات م د د /رسات	ر " الا " 8 8 - الا " الا الا الا الا الا الا الا الا ا	Method	References
		[2]	م (سر)	[g/lm]	[uu]	[am]				
thet methanists	Polymethel metharrylate-co-styrene (Cont. d.)									
52/49 mol sandom		40.8	:	8	728	305	2,39		۸Ċ	613
10(10 mg) sandom		809	;	68	707	302	2.34		ΔQ	613
month tendom			;	2	fBS	302	2.21		٥	813
C/100 mol. random				88.	A95. BS		2.05		VG, VT	614
71/29 mol, tandom		8 :	'		2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		2 15		YG.V.	614
44/56 mol, tandom	varions solvents	န	;		S icus		2 5		TA 57	414
30/70 mal, tandom	various sofvents	~30	!	174 2	61.01.95		7.7			919
three blocks (MSM)	cyclohexanol	19	:	8	617	305	2. 8		· •	919
nearly equinolar										
Poly(styrene-co-vlny)pyrralidane)	olidone)								Ş	
87/13 wt, random	mane	X3	:	96					<u>.</u>	180
•	butanone/2-propanel									į
	(15/25 vol)	25	1	94					-	689
12/87 w 12/81	hutanent/2-oropanol									
•		25	341	2					LT,VT	7
tota alam furthamonome con annuality.	in the state of th									
ene -on -nomonine	•	P 86	1	1 15	575	282	2,02	8,15	Λ	317
			;		28.2	285	2,05	B . 4	VT	917
		20	!	3		1	:			
lucronitrosometh.	Poly(trifluoranitrosomethane-co-tetrafluoraethylene)			į		3	60 0189 1		5	376851
		35	:	es es	51015	B) 5:	C. 00 10.1		:	formie
			. 2 . N	LAIN-CHAIN CAR	MAIN-CHAIN CARBOCYCLIC POLYMERS	S				
roty(1, 2-acen apartieny tene)	ne)	22	;	364 3	520, 20	354	1,47±0.05		۸g	263
				MAIN-CHAIN HET	3. MAIN-CHAIN HETEROATOM POLYMERS	īks				
				3.1 PQ	J. I POLY(NXIDES)					
tene axide), see	Polysbutene axide), see Poly(ax)(ethylethylene)]									
ylene exide), 🗴) lene)			į		• 666	67 6	9	ò	388
Poly(oxy(lett-butylethylenel) benzene		22	:	230	uce.		, i) · · ·	? :	007
Poly(0xy-1, 2-cyclohexylene) toluene		35	:	S	269	359	1.63	,	> :	214
Poly(oxydecamethylene)	: chteroform	~30	;	240	080	570	J. 68	۲.S	S A	GRE.
Poly (oxy(2, 6-dimethy)-1, 4-phenytene)]	1, 4-phenytene)]							!		•
•	chlorobenzene; toluene	25	:	1681 5	K331 10	715	1,16+0.02	2.1	9 A	474
	benzene; carbon tetrachloride	25	!	175± B	6504 10	715	1,1340.02	2,6	לפ	473
v(" 6-dinhenv]-)	Poly[cxx4? 6-dlohenvl-1 4-ohenvlene)]									
الداء ، الداسية ا		è				50.5	1 3940 04		Š	473

These values of r of polycepexide) charm were calculated by 0.377/M 1/2 (am. mol gram 1/2), while those given without asterisk were calculated by 0.380/M 1/2. The former is due to Allen et al. (Ref. 635). The initer it based on the assumption that all valence angles of skeleton are tetrahedial.

(i	Solveni		4 ZD		c	ā				
		ا _ي دا	d [uu]	[m1/g]	[nm]	(mm)				
			;	116, 10	750+ 30	. 14	1.3840.09	3.8	3,0	3(389,290)
Poly(exyethylene)		3		•					5	305,655
	aquenus K2SO4 (0,45M):	;	1	1154 15	7751 33	543	1, 43,000	- ·		656 388
	aqueous MSSO, (0.39M)	242			051	25	1.48	4,25	2	200
	Tenzene Tenzene	25	:	471		141	1.55	8.9	٥ م	95
		25	:	110	976		- 55	. 00	۸G	397
	Acetone		170	T.	. 840	ī	3		ST	166
	sarious poor solvents		* (60 0 00 00 0)	1. [deg]					F. 25.	196
	nndiluted		/ dr a for col = 10/		200	423	1, 6840,05	5.0	2	904
[factor by the County of the	benzene: butanene: 2-propanol		;	- ·	3 6	427	1.41	5,85	77	A
יו סע אובייין זיי היו איייין י	2-monage	30	:	11	6.0	1 ST 25	1.61	6. 15	S A	N.E.
\$ 1.5 mg	The state of the same	22	1	182	arc.	•				
Polyfoxyhexamethyledej	harman time seadulty drake	ų			;		9 3 40.2	10.5	v.G	402
Poly(mymethylene)	(1 /1 T mol)	52	;	4301 40	12001 80	276				
•	Control of the contro									
Poly oxy(2.methyl-6-phenyl-1,4-pnenylene)	(-1, 4-phenylene)								Ţ	673
	dioxane/methylcyclohekune			4	T80 - 20	580	1,3640.04	E	- ;	386
	(lav 1/1)	82	:	5 1	199	304	1.85	6.85	٥	
[to the contract of the contr	an and co	25	;	2		647	1.5940.05	5.05	ა ^	(1)6)5
Poly(oxy(phenyleiny lene))	Constitution of the state of th	25	:	1154 10	7504 25	į				
Poly(oxypeopTiene)	Den Kerlej Jiletijanes	•						A 85	77	411
	toluene/2, 2, 4 -ttimethytpentm	5	;	107.5	135	472	1.01		H	654
	(5/1 vof)	c.	y c	;	300	494	1.62	6. 13	;	
	2, 2, 4-lilmethylpentans	20	200						1	619
only (constatute methylene)	ethyl acetate/hexade			9	82 1000	568	1. 62±0. W	5.25	1.4	017
(A) (a) (a) (a) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	(ms.71/7.22)	31.8	:	200	05.000	556	1,5540.05		ა >	•
	athyl acetate	00	:	1804 20	20.00					
•							96	-	Υ	658
	chyl acetate, nexalit	•	:	267	SLG	556	£ ;		ΤΛ	658
	(22,1/77 3 wt)	30.		0.43	845	554	02.1	B.	: !	848
	diethyl malmate	33.5	:	2	000	550	1.67	9.6		•
		44.6	:	[2]	830	3			ĸ	628
	z-propulbi	S die	En Alo 1 7/dT = -1,33 x 10	[deg]						
	undlitted								;	717
(analysis in selection)	acetone; benzane; carbon tetta-				- TRS	550	1.45	4.5	2	•
The American Comment	chleride	စ္ပ	i	120	ì					
Poly(prepylene oxide), see Poly(oxypropylene)	e Poly(oxypropylene)									
oly(tetratydroforan), sec	Poly(tetrahydroforan), see Poly(oxytetramethylene)									
			ຕໍ່	2 POLY(ESTERS)	3,2 POLY(ESTERS), POLY(CARBONATES)	TES				
alimberol A poly(carbona	nimhenel A poly(catbonate), we Polyl exyearbenyloxy-1.4-ptenylenetsopropylldene-1,4-phenylene]	4-phenylenat	sopropylidene-1,4-pl	hen y lene]						
Paty(ethytene terephthala	Priy(ethytene terephthalate), see Poly(axyethyteneoxyterephthalay))	phthaloyD					•		F 2	3(415)
Poly(oxyadipsyloxydecamethylene)	nettry lene)	ន	:	1034 10	7201 25	540	1,3340.05	6. E		
contraction low loxy lexamethylene	examethylene)			60	870, 30	627	1,39±3.05	9.5	۸d	ં (41 છે)
		5	:	1601 20						

References page IV-52 * These values of rolar polycepoxide; chains were calculated by 0.377/M 1/2 (nm. mol 1/2), while fliose given without siterits were calculated by 0.350/M . The former is due to Allen el al. (Ref. 1869). The latter is based on the assumption that all valence angles of skeleton are tetrahedral.

Polymer	Solvent	тетр.	S /K 1/2 x 10 ox w x 10	10 K x 10 3	r /M × 10	r /M x 10	0 * t /r	C = t /h]	Method	References
		<u>5</u>	(uu)	[m]/g]	[mm]	[am]				
[axycarbanylaxy-1,4-phen]	Poly(oxycerbony)oxy-1, 4-phenylene isopropylidene -1, 4-phenylene]	[eg								
-	methylene chlutide: tetrahydro-			;		90	8 0.01		2	37478)
	furan	ន	;	180* 20	880 = 20	180	1.1010		2 !	to a series
-	butyl benzyl ether	170	;	210	P40	186	1.18		•	•
	eveloherane/dlozane									•
	(36.1/61.9 vc)	28	;	210	040	196	1.19		<u>1</u>	P
•	chloroform: tetrahydrofuran	25	;	1504 13	940	186	1.6		S V	BL*
-	Complete Com	}								
-	hexane/textachiosocthane	ę	ļ	. ç	UKB	786	1,16		ΥŢ	169
	(54/46 vol)	2	:	3	2	}				
Poly(oxy -1, 4 -cyclohery kineoxysebacoyl)	yschacoyl)			:	;	ç	4.00		Š	RARE
15	chloroform	20	;	1401 20	BOJ4 30	65	1,0240.03		: :	60770
•	charoform	20	;	1604 20	840* 30	633	1,3340,05		9	0.400
onthyleneoxytere of that	Q.A.									
a demonstration of the state of	ohenol/letrachloroethane									
	1/1 val.	25	:	1604 15	8404 25	189	1,22±0,03	3,15	ķ	3(491)
	704 1/1)		:	210	910	487	1.33	3.7	VG V	484
	organdosono-o	1 2	i	696	5	687	1.42	4.25	۸Ċ	488
	Efficatorcette Acid			:						
Poly(exylumaroyloxyhexamelfylene)	ylene)	90.40	;	180+ 20	8704 30	265	1,4710.05	4.3	۸G	3(41)
	Chletoream	00.07								
oxythexabydootesephtbalo	y)) axyoctsmethylene]	5	1	140+ 20	800+ 30	495	1.6240.05		٩Ġ	3(480)
cis	Chidiolain	3 3		140, 90	840, 30	683	1,3310.05		Ŋ	3(480)
trini	chloroform	2	l			•				
Poly(axphexemethyleneaxy-2, 9-dibutylebscoyi)	9-dibutylsebscoyl)			1		754	1 8240 15	4	מפ	3(418)
	benzene	20	:	155± 25	8354 10	ī)	•
Poly(oxyheramethyleneoxyrebacoyl)	acoy1)					•			5	21718 A1D
	ben zene; chlatoform	33	1	215+ 60	910,100	240	1,7040,17	ů ř	2	2(*10,*1
ovedennhibalovickel. 4-1	Poly oxygooblibaloviouv. 1. 4-phenylene (Namen -9-yildene) -1, 4-phenylene]	4-phenyben	E-							
	1. trachloroethan: tetrahydro-									
	furan	20	:	210	305				٧G	4 19
believer levelory beramethylene)	(coe)									
() () () () () () () () () ()	benzene: chloroform; tetta-									
	hydrofiren	20-50	;	1354 15	780± 30	210	1.58+0.05	₩.	9	3(417)
	1									
Polytoxysebacopioxynexadecumenty tests	facety teach	ē	;	2704 40	10001 50	555	1.8040.10	6.5	٧٥	3(418)
	chloralogin	17		:						
Poly(axysocinyloxyhex amethylene)	ylene)									
	benzene: chloroform; tetra-			;		Ş	*1 0.02 1		ď	37417
	hydrofutan	20.50	:	155t 30	E504 NO	220	1,0220,1			War 017/C
Polytox yundecanoy 1)	chloroform	20	:	1854 60		0.00	1. 5010, 19		2	(ar. • (r.) (ar.)
				3.3 10	3.3 POLY(AMIDES)					
	;									
Paly(iminoadipayiiminchexamethylene) (Nyton 86)	netbylene) (Nyton 86)			;	4	***		•	Š	3/448 44B

							8 3		A. Carrette	ž
Polymer Sofrent	Твтр	S /M 1/2 x 10 K K 10	K 10	01 K 8/1 N/3	01 K 7/ M/°	Jo 0	مدز/دارهاد/سا	Method		
	(°C)	fmn)	(mVg)	[nm]	[uu]					•
(P) (State of the state of the										
Poly(trainosatipo) intrincies and			Š		245	1.85	6,85	۲۷	4	
KCI (2.3M)	22 F2	: :	261	SEA.	648	1,72	6,95	۲,	899° 608	
(Nylon 6)	1		;	4 .000	- 565	1, N3±0.04	5.3	۸G	3(453)	
conc. H ₂ SO ₄	ន	! !	1901 10	97.0	545	1.78	6.35	vT,VG	450	
equerca HCOOH (55 ~ 67m) Poly (iminoterephthaloylimino-1, 4 -phenyleme(fluoren-9-yilden dimethylomamide	23 idene) -1, 4 -ptvenylene) 25		#0₽	₽6.2.1~				۸G	503	
			3.4 POLY(/	3.4 POLY(AMINO ACIDS)						
Poly(B-benzyl-tasparlate), see Poly(imtsocarbonyl-tbenzyloxycarbonylethylldene)	loxycarbonyl	ethylldene) rlmosylldene)								POLY(
Poly(y-benzyl-L-glutamate), see Poly(iminoeatodyl-t-benzyl-my-a-c-yl-rey) Poly(iminocatbaryl-L-benzyloxycaibonylethylldene)	190	:	:	600	268	2,24±0.1	9.6	۸۸	670	AMINO
				;	e e	2.3240.08	10.3	٥	3(457)	AC
Poly(unincertomy)-L-ventyimy when your property and dichloroscette acid	ន្ត	: :	582	600 <u>*</u> 20	ŝ	2.14		٧x	810(457)	TDS),
distantanted acid: dimethyl-				;	ě	2.32+0.08	10.3	98	3(459)	POLY(
D. L. (emamide	85	:	284 5	6404 20	607					URE
Poly(iminocarbony)-L-carboxyropyiddene), (Poly(L-gintamic scid)) phosphate buffer (Na , 0.8Mi , 1	c ac(d))	;	:	720	387	2,1440.1	8.8	٧,	610	THANES
pH. 7.85) Poly((methyllmtnotcarbonylmethyltnel, (Poly(sarcodne))	. %	1	804 20	510, 90	455	1,25±0.20	3.0	9	3(468)	
			3.8 POL	3.8 POLY[URETHANES]						
Poly(exyteteamethyteneoxycatbonytlmino-2, 4-tolyteneiminocatbonyt)	scatbonyl)	:	:	1030	515	2.0		o A	497	
dinent year.			3.6 PG	3.6 POLY(SUIJIDES)						
bestadikingenujene) bestabe	20	;	99	600				٥٧	438	
			3.T FOI	3.T POLY (PHOSPHATES)						
Poly[oxy(hydroxyphosphinylideae)]	22	:	\$0 7 0	\$ 560± 20	310	1.51±0.04	5,6 5,6	VT.VG) 6	
aqueous LiBr						3.93	1.1	5	8	_
Aqueous CeCi (0, 94hf)	8	1				2, 25		5	863	<u>r</u> v.
aqueora LICI (2.9M)	30									
								2	References page IV-52	2

Polymer	Solvent	Temp.	S /M × 10	X * 10	7 /24 × 10	S /M	σ= t /t C = t /n	= ~ ° ,8	Method	Kelerenoei
		این	(mi)	[m1/g]	. [mu]	[nm]				
Poly(oxy(hydroxyphosphlaylidene)) (Cent' d.) aqueous NaCJ (lene)] (Cont' d.) Aqueous NaCl (0.52M)	30					2.78		ħ	. 683
		3.8 %	3.8 POLY(SILOXANES), POLY(SILSESQUIOXANES), POLY(SILMETHYLENES)	OLYSILSESQU	TOXANES), POLY(S	(ILMETHY LENES)				
Poly(dimethyl iflæane), vec Poly(dimethyliflnietlyfene)	Poly(dimethyl itloxane), see Poly(oxy(dimethylsilylene)] Poly(dimethylsilmethylene) heplane/propanol Ang RASI 2 volt	22	540	:	888	450	2.2	:	5	140
Poly(dimethyliflicimethylene)	2	, g	:	;	0521	480	2.6	:	ង	671
Polyfdiphenylilitr(melliylene)	**************************************	}								
	cyclobexanol/tolocne	25	230	;	1160	322	3,6	:	5	1159
[(analy()and()any()any()any()	hatanone: Caluene	~32	, ,	80.4 5	670t 20	482	1,39±0,05	6,25	VT, VG	3(427, 428), 864
1414A 1404 1111 1111 1111 1111 1111	verfour theta solvents	2-90	2681 10	;	6124 13	482	1, 27±0, 03	5.2	F	425
	CF /C CF C3/81 vb	22.5	:	106	140	482	1,54	1.6	۲۷	484
	elby lodide	8	1	20	640	482	1,33	5.1	VI	425
	bromocyclohexane	59	;	\$	855	482	1.36	6.0	L	425
	brompreyelohexane/phenetole	ě	;	35	999	482	1.37	6,1	۲۷	425
	chlorobenzone/dimethyl phtha-									
	late (45/6 vol)	57.5	:	18	640	482	1.37	0.1	T,	425
	bromobenzene	TB.5	:	16	ARTO	4 82	1.37	đ. b	^	426
	phenetole	89.5	;	ŭ	629	482	1.35	5.9	7.7	425
	undtluted	40-100 dln	40-100 dln r 2 = (0,78±0.05) x 10 3 (deg 3)	x 10 [deg					rs .	665
	diluted with Manid stillen	30-105 din	30-105 dly $t^2 = (0.71\pm0.13) \text{ y } 10^{-3} \text{ (deg })$	Flo deg					۲۷	965
Poly(oxy(d(mooy)s)ly)ene)]	2-pentanone	76	; •	07.1	101	372	1.89	12.0	L	433
	toluene	01	:	109	150	372	2.04	14.0	T V	433
Poly[exy(methylphenylatlylene)]	nej]								,	
•	ditrobutylemine	30,4	:	51.5	575	363	1.58	8.35	L	434
Polytoxy(Y-Diffluoropsopylniethybilytene)	ethylstlytene?]				•		•		į	
	cyclobeny) acetate	25.0	:	41.0	550(648)*	341	1. 61(1. 90)		۲۷	₹
	methyl hexanoste	12.8	ï	4.5	585/067)*	ž	1, 66(1, 96)	6.65	۲×	435
					0911	;	;		۲	200

*The values of roll and 3 given in parenthesis were obtained by using $\Phi_0 = 1.5 \times 10^{-3}$, while those given cutside by using $\Phi_0 = 2.5 \times 10^{-3}$.

PC Im	Polymer	Solven	Temp.	8 · /M 1/2 x	10 K K 10	· /M × 10	6/M1/2 x 10 c/M1/2 x 10	G = t /r C = t /nl	Method	Perforen ce s	
HETEROCYCLICS) #890				[uuu]	[m]/B]	[ພຫ]	[am]				
### First 1, 4 - plany Liston 1, 4 - plany Lis					3.9 POLY(HE	TEROCVCLICS)				•	
2	oly (1, 3 -dthydro-3-oxo-fioba	en zofutan -1 -ylldene) -1 ,4-pbenyles	neoxy-fsopł	hthaloyloxy-1,4	-phenylene]						
2 #25 1.50 1		tetrachiorocihane: tetrahydro-	0.6	:	185	680	;	:	δV	F14	
11	Paly[(1.3-dihydro-3-oxol#cbe	nzofaran - L. ylidene) - 1, 4 - phenylena	efminotere;	ohthaloy timfina ~1	1,4-phenylene] 558	~1500			אפ	503	
13	Poly[(D, E-1, 2-pyrrolldindlyb)	orm sm tuc	; ;	;	25, 25	cs. 570	380	cs. t.5	ķ	3(507)	
## ## ## ## ## ## ## ## ## ## ## ## ##	Priy(1-liabutyl-2,5-díoxapyrs		3 8	;	132	780	:	;	8	213	
30 82.6 T32 383 1.31 30 82.6 T32 383 1.31 313 2364 2 642, T 380 1.340, 02 213 664 2 642, T 380 1.464, 02 210 61	Poly(1-p-talyl-2,5-dianopym	butyl acetale olidin-1,4-diyl) diniethylformamide	1	; ;		nT0	;	:	9^	513	PC
36 82.6 T32 3ES 1.91 SULFONES 13 2864 9 724 250 1.784.0.02 13 2864 9 724.2 350 1.784.0.02 13 2864 9 6421 T 350 1.8440.02 20 664 2 6421 T 350 1.866 20 664 2 6421 T 350 1.866 20 67.4 648 400 11.5 67.4 648 4250 11.50 9 100 142 1.50 11.50 9 174 673 1.89 9 174 673 1.89 11.50 9 174 673 1.89 11.50				3.10 COPOLYI	NEES (NALEIC A	JHYDROE, SULFOR	(ES, SILOXANES)				LY(H
SO 82.6 732 383 L.11 SUIFONES 13 671, 2 624, 10 350 1.3910.02 13 2264, 9 7251, 22 350 2.0710.07 13 2264, 9 642, 7 350 1.9440.02 20 644, 2 642, 7 350 1.9440.02 11.5 61 700 1.95 1.65 30 61 648 648 625 1.63 11.53 61 700 1.42 1.63 11.54 61 61 61 61 61 61 61 61 61 61 61 61 61					MALEIC ANHYD	RUDE COPON, YMERS					ETERO
SULFONES 13 2064 9 7264 10 350 1.7910.02 became 23 664 2 6424 T 350 2.0740.07 regional 8~24 654 2 6424 T 350 1.940.02 regional 8~24 654 2 6394 T 350 1.940.02 regional 40 20 654 2 6394 T 350 1.9540.02 regional 40 20 614 648 425 1.63 regional 44/56 wt) 42 614 648 620 1.56 regional 44/56 wt) 42 78 675 1.84	Polyl (tetrahydro-2, 5-dloxo-2	3,4-fwandiytj-1+phenytettiylene] tettahydrofutan	30	1	82.6	132	<u>8</u>	1,91	۸۵	809	KYCLICS)
13					กร	LFONES					, cc
13 2864 9 7254 22 850 2.0740.07 15 2864 9 7254 22 850 1.9440.02			;	;		f25± 10	350	1, 1910, 02	۲۷	899	
the state 1, 540,072 1, 54	Poly[iuttonyt(butytethytene]]] hexyl chloride	2 2	2964	:	7251 22	350	2,07,0,07	5	999	MERS
Action of the control		benzene/cyclohexane	ğ	;		6424	350	1, 94±0.02	5 _A	348	
11.5		tutsnone/2-propanol			2	089	350	98.3	۲۸	439	
S vol) 11.5 91 700 648 425 1.63 an 30 67.4 648 425 1.63 ce) 9 100 142 1.56 ne 9 100 142 1.70 na 9 174 670 1.70 na 675 1.61 nable		(30~31/10~63 vol) dioxane/hexane (40/00 vol)	*. ~ R 02	: :		6381	350	1,83±0.02	+ ^	2	_
SILOXANES 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.64 1.	Poly[rulfonyl(l-methyl·l-pi	ropy)ethylene)] butanone/hexana ras 4/64 6 vol)	11.5	:	18	700	•		, F	439	
SILOXANES 9 100 142 1.56 short (44/56 wt) 42 14 670 1,70 she 82.5 18 675 1,81 1(37/63 wt) 29.5 18 675 1,61	Poly(sulfony)-(phenylethyle		30	!	51.4	B\$9	425	1. 63	DA	440, 86T	_
AMOD (44/56 WG) 42 1,56 AMOD (44/56 WG) 42 14 670 1,70 ARC 82.6 TB 675 1,61 (37/63 WG) 29.5 TB 675 1,61					IIS	JOXANES					
Axnol (44/56 wt) 42 1,70 ate 82.5 TB 675 1,81 (37/63 wt) 29.5 TB 675 1,81	Poly(dimethy] slloxane-∞-	diphenyl «Hoxane)		;		142	;	1,56	TV	989	, <u> </u>
### ### ##############################	85/5 moi	85/44/ Form		: :		670	;	01,10	; ;	5 8 8	
ethanol/tolurne (37/63 wt) 29.5 18 915	66/34 mol	dimethylphthalate		1		675	f	18.81	: 5	586	IV-
		ethanol/toturne (37/63 wt)	29.5	1		675					

Polymer	Solvent	Temp.	S /M "/2 x 10 K x 10 S or w or w	0 K x 10	r /M / x 10	10/M1/2 x 10	۵ • ۱ / ۱ و ا	σ * ε / ε ς ς = η ^ / η ¹	Method	References
		[2]	[ma]	[m1/g]	[uu]	(mu)				
			·	4. CELLUIDSE /	4. CELLULOSE AND DERIVATIVES					
Amylose	dimethyl julfoxide; ethylene									
	diamine	22	:	584 12	600± 50	338	1, 7840, 15		۸G	8(616)
	various tolvents	22	;	i	100	335	2.08		VI,VG	517
	squeous KC1 (0, 33NQ) dimethyl									
	sulfoodde	25	:	110, 5	750 _e 25	335	2.24(0.08		VT.VG	3(520)
	squeous KCI (0.5M)	23	;	61	625	335	1 .83		\$	523
	Aqueous KOH (0.15M)	ន	;	164					٥ ٧	519
	squescs KC1 (0.33M)	52	;	;	:	:	:	5.2	T	230
	offrenethme	22, 5	:	;	920	336	2. 15		2	627
Amylose blacetate	chloroform; nitromethane	30	;	471 10	1801 60	250	2.3240.24		δV	3(624)
•		30	:	₽	580	250	2.32		ΛG	949
		30	;		8001 15	250	3.2 ±0.06		۸c	57.1
Amylose tricarbanilate	acetone; dionane; pyridine	20	;	274 6	470± 30	187	2.5140.18		۸G	3(628)
•	dioxane/methanol (49/51 vol)	20	:	ï	2180	:	11.7		נז	818
Carboxymetbyl amylow, sodlum salt	odfum istt							•		
	equeous NACI (0, 65M)	37.5					2.62	1.9	T.	809
	Aqueous NaCE (0.5Nf; pH B)	35					2.96	10.0	٧A	630
	equeous NaC3 (0,78N;							+		
	0.02% NeN J	32					2,15	5.3	٧,٧	531
Diethylaminoethyl amylose hydrochloride	: hydrochloride									
	aqueous NaCl (0, 78M;							•		
	O. OZE NAN.	35						6.4	٧,	581
Cellulose	cupriethylene diamine	22	i	180₹ 80	9004150	620	1, 45 £0, 25		٥	3(637)
	cadoxen	23	0.24	485	1250	620	2.0		ΛC	891, 534
Cellulose triacelate	scetone; chloroforn: o-cresol	25-30	:	1084 10	750s 30	465	1.6140.67		y VC	3(541,542)
	ethylacetate; dloxane; methyl									
	acetate: tetrahydrofuran	ន			130~140	465	1.57~1.58	œ	۸G	680
Cellulose tributyrate	butanone	30	:	974 15	1301 40	408	1.78±0.10		٩c	3(544)
		130	;	Œ	690	408	1.69		VT	¥
Cellulose Dicarbanilate	acetone; dloxane; pyridine	20	:	1304 30	8104 20	346	2.34*0.20		S V	3(528)
		93∼	:	65± 3	635	346	1.63		S A	693
	cyclobexane	~26	;	83, 543	680	348	3.89		ò	693
	dioxane	~25	:	441.3	580	346	1.41		٥	693
	dloxane/methanol									
	(42, 5/67, 5 val)	20	:	:	1120	346	3.24		5	678
	*misol	Z	ca. 1000	130	BOS	346	2.32		ני, יז	846
	cyclobexanol	73	ca. 1050	;	375	346	2.52		ち	546

* These values of the characteristic ratio C of cellulosic chains were obtained by C = r /DP 1, where DP is the degree of polymerization and I = 0.425 [nm].

Palymer	Salvent	. темр.	E	6 × 10 × 10 × 10 × 10 × 10	7 /k4 x 10	K K 10 T / H / K 10 T / AM K 40 K K 10 T / H / K 10 T / AM K 40	0=1/1 C=1/11	r /u)	Method	Keitere	i .
	•	[2]	[um]	(B/NE)					!	547	
				240	430	370	2,65		۲ ۲	543	
Cellulose tribexanoste	dimethylfornamide	& #	; !	224	940 810: 50	370 458	2,60 1,77±0,11		2	3(535, 537, 548, 549) 3(549)	
Cellulose trinifiate		25 25 25	366	20 1 30*	720	458	1,67 2,03±0,03		3 % 9	641	
		ឌន	0.26±0.01 0.40~0.70	: :	1180 ~ 1590	458	2,58~3,46 1,86~2,12		\$ \$	679	
		92 7	0, 22 ~ 0, 21	; ;	450 ~ 875 2410	462	1		ន ន	689	
(Nitrogen %, 13.9)	Boetone	ខន	230	:	0811	475	₹ 60 7) #		23	565	
(Mitrogen %, 12.3)	acetone	;	100	:	2060	48.1	2.5		×	C89	
(Nittogen %, 13.5)	ethy) Boetate	; 5	0.48	;			2.3540.12		9/	3(544)	
(Nitangen %, 12.9)	noctone	: =	:	1271 16	800+ 40	2	2.21		۲۸	T	
Cellutose trioctanoate	toluene thaildemaniide	971	1	118	710	340	2.37		5	3/559	c
	v-phenylpropanol	\$: :	129	970+ 20	520	1.87±0.03		9 X	3(669)	ELU
Ethyl cellulase	methanol	ផ្ទ	:	5504 90	13631 60	545	2.30±0.03		۸c	691,560,692	iLOS
Ethyl bydroxyethyl cellulose water	valer	8 8	1	333	1900	514	1.9		9 %	1691, 541	
gydroxyethyl cellulese	cadoxen; water	83 E	; ;	820+100	15671 60	185	2,5840.10		2	•	
Methyl cellulose	water	3				Ş	2,0		٧G	691, 565	
Sodium carboxymethyl cellulare	ulase	25	:	357	1130	202	2.4		9 0	691, 386 681	
		ឧឧ	1 1	280	1380	:	2.5	:	2 \$	488	
Sodium cellulose xanitabe tyainmole acid	squeous NCI (0.1M)	22	:	1	;						

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Note: References 508-511 and 575-589 are for biological polymers such as collagen, gelatin and poly(mucleotides), which do not appear in the present